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THE
LONDON ENCYCLOPÆDIA.
1832

The Subscribers to the London Encyclopedia cannot but be gratified by the introduction of the following Article on INFIDELITY, from the pen of the late Rev. ROBERT HALL; and its importance, the publishers hope, will be a sufficient apology for giving it prominence, by placing it at the beginning of this Part.

INFIDELITY is the joint offspring of an unreligious temper and unholy speculation, employed, not in examining the evidences of Christianity, but in detecting the vices and imperfections of professing Christians. It has passed through various stages, each distinguished by higher gradations of impiety; for when men arrogantly abandon their guide, and wilfully shut their eyes on the light of heaven, it is wisely ordained that their errors shall multiply at every step, until their extravagance confutes itself, and the mischief of their principles works its own antidote. That such has been the progress of infidelity will be obvious from a slight survey of its history.

Lord Herbert, the first and purest of our English *free-thinkers*, who flourished in the beginning of the reign of Charles I., did not so much impugn the doctrine or the morality of the Scriptures, as attempt to supersede their necessity, by endeavouring to show that the great principles of the unity of God, a moral government, and a future world, are taught with sufficient clearness by the light of nature. Boringbroke, and others of his successors, advanced much farther, and attempted to invalidate the proofs of the moral character of the Deity, and, consequently, all expectations of rewards and punishments; leaving the Supreme Being no other perfections than those which belong to a first cause, or Almighty contriver. After him, at a considerable distance, followed Hume, the most subtle, if not the most philosophical, of the Deists; who, by perplexing the relations of cause and effect, boldly aimed to introduce an universal scepticism, and to pour more than Egyptian darkness into the whole region of morals. Since his time sceptical writers have sprung up in abundance, and infidelity has allureled multitudes to its standard: the young and superficial by its dextrous sophistry, the vain by the literary fame of its champions, and the profligate by the licentiousness of its principles. Atheism, the most undisguised, has at length begun to make its appearance.

Animated by numbers, and emboldened by success at the commencement of the French revolution, infidels gave a new direction to their efforts, and impressed a new character on the ever-growing mass of their impious speculations. By uniting more closely with each other, by giving a sprinkling of irreligion to all their literary productions, they aimed to engross the formation of the public mind; and, amidst the earnest professions of attachment to virtue, to effect an entire disruption of morality from religion. Pretending to be the teachers of virtue,

and the guides of life, they proposed to revolutionize the morals of mankind; to regenerate the world, by a process entirely new; and to rear the temple of virtue, not merely without the aid of religion, but on the renunciation of its principles, and the derision of its sanctions.

With respect to the sceptical and religious systems, the inquiry at present is not so much which is the truest in speculation, as which is the most useful in practice; or, in other words, whether morality will be best promoted by considering it as a part of a great and comprehensive law, emanating from the will of a supreme, omnipotent legislator, or as a mere expedient, adapted to our present situation, enforced by no other motives than those which arise from the prospects and interests of the present state.

The subject, viewed in this light, may be considered under two aspects; the influence of the opposite systems on the principles of morals, and on the formation of character. The first may be styled their direct, the latter their equally important, but indirect consequence and tendency.

1. The sceptical, or *irreligious*, system subverts the whole foundation of morals. It may be assumed as a maxim that no person can be required to act contrary to his greatest good, or his highest interest, comprehensively viewed in relation to the whole duration of his being. It is often our duty to forego our own interest *partially*, to sacrifice a smaller pleasure for the sake of a greater, to incur a present evil in pursuit of a distant good of more consequence. In a word, to arbitrate amongst interfering claims of inclination is the moral arithmetic of human life. But, to risk the happiness of the whole duration of our being in any case whatever, admitting it to be possible, would be foolish; because the sacrifice must, by the nature of it, be so great as to preclude the possibility of compensation.

As the present world, on sceptical principles, is the only place of recompence, whenever the practice of virtue fails to promise the greatest sum of present good, cases which often occur in reality, and much oftener in appearance, every motive to virtuous conduct is superseded; a deviation from rectitude becomes the part of wisdom; and should the path of virtue, in addition to this, be obstructed by disgrace, torment, or death, to persevere would be madness and folly, and a violation of the first and most essential law of nature. Virtue, on these principles, being in numberless instances at war with self-preservation, never can or ought to become a fixed habit of the mind.

The system of infidelity is not only incapable of arming virtue for great and trying occasions, but leaves it unsupported on the most ordinary occurrences. In vain will its advocates appeal to a moral sense, to benevolence and sympathy. In vain will they expatiate on the tranquillity and pleasure attendant on a virtuous course; for it is undeniable that these impulses may be overcome; and though you may remind the offender that in disregarding them he has violated his nature and that a conduct consistent with them is productive of much internal satisfaction; yet, if he reply that his taste is of a different sort, that there are other gratifications which he values more, and that every man must choose his own pleasures, the argument is at an end.

Rewards and punishments, awarded by omnipotent power, afford a palpable and pressing motive, which can never be neglected without renouncing the character of a rational creature: but tastes and relishes are not to be proscribed.

A motive in which the reason of man shall acquiesce, enforcing the practice of virtue at all times and seasons, enters into the very essence of moral obligation. Modern infidelity supplies no such motives: it is therefore essentially and infallibly a system of enervation, turpitude, and vice.

This chasm in the construction of morals can only be supplied by the firm belief of a rewarding and avenging Deity, who binds duty and happiness, though they may seem distant, in an indissoluble chain, without which, whatever usurps the name of virtue, is not a principle, but a feeling; not a determinate rule, but a fluctuating expedient, varying with the tastes of individuals, and changing with the scenes of life.

Nor is this the only way in which infidelity subverts the foundation of morals. All reasoning on morals pre-supposes a distinction between inclinations and duties, affections and rules. The former prompt, the latter prescribe. The former supply motives to action; the latter regulate and control it. Hence it is evident, if virtue have any just claim to authority, it must be under the latter of these notions, that is, under the character of a law. It is under this notion, *in fact*, that its dominion has ever been acknowledged to be paramount and supreme.

But, without the intervention of a superior will, it is impossible there should be any moral laws, except in the lax metaphorical sense in which we speak of the laws of matter and motion. Men being essentially equal, morality is, on these principles, only a stipulation, or silent compact, into which every individual is supposed to enter, as far as suits his convenience, and for the breach of which he is accountable to nothing but his own mind. His own mind is his law, his tribunal, and his judge!

Two consequences, the most disastrous to society, will inevitably follow the general prevalence of this system; the frequent perpetration of great crimes, and the total absence of great virtues.

1. In those conjunctions which tempt avarice, or inflame ambition, when a crime flatters with the prospect of impunity, and the certainty of

immense advantage, what is to restrain an Atheist from its commission? To say that remorse will deter him is absurd; for remorse, as distinguished from pity, is the sole offspring of religious belief, the extinction of which is the great purpose of the infidel philosophy. The dread of punishment, or infamy, from his fellow-creatures, will be an equally ineffectual barrier, because crimes are only committed under such circumstances as suggest the hope of concealment; not to say that crimes themselves will soon lose their infamy and their horror, under the influence of that system which destroys the sanctity of virtue, by converting it into a low calculation of worldly interest. Here the sense of an ever-present Ruler, and of an avenging Judge, is of the most awful and indispensable necessity; as it is that alone which impresses on all crimes the character of *folly*, shows that duty and interest in every instance coincide, and that the most prosperous career of vice, the most brilliant successes of criminality, are but an accumulation of wrath against the day of wrath.

As the frequent perpetration of great crimes is an inevitable consequence of the diffusion of sceptical principles, so, to understand this consequence in its full extent, we must look beyond their immediate effects, and consider the disruption of social ties, the destruction of confidence, the terror, suspicion, and hatred, which must prevail in that state of society in which barbarous deeds are familiar. The tranquillity which pervades a well-ordered community, and the mutual good offices which bind its members together, is founded on an implied confidence in the indisposition to annoy; in the justice, humanity, and moderation of those among whom we dwell. So that the worst consequence of crimes is, that they impair the stock of public charity and general tenderness. The dread and hatred of our species would infallibly be grafted on a conviction that we were exposed every moment to the surges of an unbridled ferocity, and that nothing but the power of the magistrate stood between us and the daggers of assassins. In such a state, laws deriving no support from public manners are unequal to the task of curbing the fury of the passions, which, from being concentrated into selfishness, fear, and revenge, acquire new force. Terror and suspicion beget cruelty, and inflict injuries by way of prevention.

Pity is extinguished in the stronger impulse of self-preservation. The tender and generous affections are crushed; and nothing is seen but the retaliation of wrongs; the fierce and unmitigated struggle for superiority. This is but a faint sketch of the incalculable calamities and horrors we must expect, should we be so unfortunate as ever to witness the triumph of modern infidelity.

2. This system is a soil as barren of great and sublime virtues as it is prolific in crimes. By great and sublime virtues are meant those which are called into action on great and trying occasions, which demand the sacrifice of the dearest interests and prospects of human life, and sometimes of life itself. The virtues, in a word, which, by their rarity and splendour, draw admiration, and have rendered illustrious the characters of

patriots, martyrs, and confessors. It requires but little reflection to perceive that whatever veils a future world, and contracts the limits of existence within the present life, must tend, in a proportionable degree, to diminish the grandeur, and narrow the sphere of human agency.

As well might you expect exalted sentiments of justice from a professed gamester, as look for noble principles in the man whose hopes and fears are all suspended on the present moment, and who stakes the whole happiness of his being on this vain and fleeting life. If he be ever impelled to the performance of great achievements in a good cause, it must be solely by the hope of fame, a motive which, besides that it makes virtue the servant of opinion, usually grows weaker at the approach of death, and which, however it may surmount the love of existence in the heat of battle, or in the moment of public observation, can seldom be expected to operate with much force on the retired duties of a private station.

In affirming that infidelity is unfavorable to the higher class of virtues, we are supported as well by facts as by reasoning. We should be sorry to load our adversaries with unmerited reproach, but to what history, to what record will they appeal for the traits of moral greatness exhibited by their disciples? Where shall we look for the trophies of infidel magnanimity, or atheistical virtue? Not that we mean to accuse them of inactivity; they have recently filled the world with the fame of their exploits; exploits of a different kind, indeed, but of imperishable memory, and disastrous lustre.

Though it is confessed great and splendid actions are not the ordinary employment of life, but must, from their nature, be reserved for high and eminent occasions, yet that system is essentially defective which leaves no room for their cultivation. They are important, both from their immediate advantage and their remoter influence. They often save, and always illustrate the age and nation in which they appear. They raise the standard of morals; they arrest the progress of degeneracy; they diffuse a lustre over the path of life; monuments of the greatness of the human soul, they present to the world the august image of virtue in her sublimest form, from which streams of light and glory issue to remote times and ages, while their commemoration, by the pen of historians and poets, awakens in distant bosoms the sparks of kindred excellence.

Combine the frequent and familiar perpetration of atrocious deeds with the dearth of great and generous actions, and you have the exact picture of that condition of society which completes the degradation of the species—the frightful contrast of dwarfish virtues and gigantic vices, where every thing good is mean and little, and every thing evil is rank and luxuriant. A dead and sickening uniformity prevails, broken only at intervals by volcanic eruptions of anarchy and crime.

II. Hitherto we have considered the influence of scepticism on the principles of virtue; and have endeavoured to show that it despoils it of its dignity, and lays its authority in the dust.

Its influence on the formation of character remains to be examined. The actions of men are oftener determined by their character than their interest: their conduct takes its colour more from their acquired taste, inclinations, and habits, than from a deliberate regard to their greatest good. It is only on great occasions the mind awakes to take an extended survey of her whole course, and that she suffers the dictates of reason to impress a new bias upon her movements. The actions of each day are, for the most part, links which follow each other in the chain of custom. Hence the great effort of practical wisdom is to imbue the mind with right tastes, affections, and habits; the elements of character, and masters of action.

I. The exclusion of a Supreme Being, and of a superintending Providence, tends directly to the destruction of moral taste. It robs the universe of all finished and consummate excellence, even in idea. The admiration of perfect wisdom and goodness, for which we are formed, and which kindles such unspeakable rapture in the soul, finding in the regions of scepticism nothing to which it corresponds, droops and languishes. In a world which presents a fair spectacle of order and beauty, of a vast family nourished and supported by an Almighty Parent, in a world which leads the devout mind, step by step, to the contemplation of the first fair and the first good, the sceptic is encompassed with nothing but obscurity, meanness, and disorder.

When we reflect on the manner in which the idea of Deity is formed, we must be convinced that such an idea, intimately present to the mind, must have a most powerful effect in refining the moral taste. Composed of the richest elements, it embraces, in the character of a beneficent Parent and Almighty Ruler, whatever is venerable in wisdom, whatever is awful in authority, whatever is touching in goodness. Human excellence is blended with many imperfections, and seen under many limitations. It is beheld only in detached and separate portions, nor ever appears in any one character whole and entire. So that when, in imitation of the Stoics, we wish to form out of these fragments the notion of a perfectly wise and good man, we know it is a mere fiction of the mind, without any real being in whom it is embodied and realised. In the belief of a Deity, these conceptions are reduced to reality; the scattered rays of an ideal excellence are concentrated, and become the real attributes of that Being with whom we stand in the nearest relation, who sits supreme at the head of the universe, is armed with infinite power, and pervades all nature with his presence.

The efficacy of these sentiments in producing and augmenting a virtuous taste, will indeed be proportioned to the vividness with which they are formed, and the frequency with which they recur; yet some benefit will not fail to result from them, even in their lowest degree. The idea of the Supreme Being has this peculiar property; that as it admits of no substitute, so, from the first moment it is impressed, it is capable of continual growth and enlargement. God himself is immutable; but our conception of his

character is continually receiving fresh accessions, is continually growing more extended and resplendent, by having transferred upon it new perceptions of beauty and goodness; by attracting to itself, as a centre, whatever bears the impress of dignity, order, or happiness. It borrows splendour from all that is fair; subordinates to itself all that is great; and sits enthroned on the riches of the universe.

As the object of worship will always be, in a degree, the object of imitation, hence arises a fixed standard of moral excellence, by the contemplation of which, the tendencies to corruption are counteracted, the contagion of bad example is checked, and human nature arises above its natural level.

When the knowledge of God was lost in the world, just ideas of virtue and moral obligation disappeared along with it. How is it to be otherwise accounted for, that in the polished nations, and in the enlightened times of Pagan antiquity, the most unnatural lusts and detestable impurities were not only tolerated in private life, but entered into religion, and formed a material part of public worship. While among the Jews, a people so much inferior in every other branch of knowledge, the same vices were regarded with horror.

The reason is this: the true character of God was unknown to the former, which, by the light of divine revelation was imparted to the latter. The former cast their deities in the mould of their own imaginations, i.e., consequence of which they partook of the vices and defects of their worshippers. To the latter, no scope was left for the wanderings of fancy, but a pure and perfect model was prescribed.

False and corrupt, however, as was the religion of the Pagans (if it deserve the name), and defective, and often vicious, as was the character of their imaginary deities, it was still better for the world for the void of knowledge to be filled with these, than abandoned to a total scepticism; for if both systems are equally false, they are not equally pernicious. When the fictions of Heathenism consecrated the memory of its legislators and heroes, it invested them for the most part with those qualities which were in the greatest repute. They were supposed to possess in the highest degree the virtues in which it was most honorable to excel, and to be the witnesses, approvers, and patrons of those perfections in others, by which their own character was chiefly distinguished. Men saw, or rather fancied they saw, in these supposed deities, the qualities they most admired, dilated to a larger size, moving in a higher sphere, and associated with the power, dignity, and happiness of superior natures. With such ideal models before them, and conceiving themselves continually acting under the eye of such spectators and judges, they felt a real elevation, their eloquence became more impassioned, their patriotism inflamed, and their courage exalted.

Revelation, by displaying the true character of God, affords a pure and perfect standard of virtue: heathenism, one in many respects defective and vicious; the fashionable scepticism of the present day, which excludes the belief of

all superior powers, affords no standard at all. Human nature knows nothing better or higher than itself. All above and around it being shrouded in darkness, and the prospect confined to the tame realities of life; virtue has no room upwards to expand, nor are any excursions permitted into that unseen world, the true element of the great and good, by which it is fortified with motives equally calculated to satisfy the reason, to delight the fancy, and to impress the heart.

2. Modern infidelity not only tends to corrupt the moral taste; it also promotes the growth of those vices which are the most hostile to social happiness. Of all the vices incident to human nature, the most destructive to society are vanity, ferocity, and unbridled sensuality; and these are precisely the vices which infidelity is calculated to cherish.

That the love, fear, and habitual contemplation of a Being infinitely exalted, or in other words, devotion, is adapted to promote a sober and moderate estimate of our own excellencies, is incontestable; nor is it less evident that the exclusion of such sentiments must be favorable to pride. The criminality of pride will, perhaps, be less readily admitted; for, though there is no vice so opposite to the spirit of Christianity, yet there is none which, even in the Christian world, has, under various pretences, been treated with so much indulgence.

There is, it will be confessed, a delicate sensibility to character, a sober desire of reputation, a wish to possess the esteem of the wise and good, felt by the purest minds, and which is the farthest remove from arrogance and vanity. The humility of a noble mind scarcely dares to approve of itself until it has secured the approbation of others. Very different is that restless desire of distinction, that passion for theatrical display, which inflames the heart, and occupies the whole attention of vain men. This, of all the passions, is the most unsocial; avarice itself is not excepted. The reason is plain. Property is a kind of good which may be more easily attained, and is capable of more minute subdivisions than fame. In the pursuit of wealth, men are led by an attention to their own interest to promote the welfare of each other; their advantages are reciprocal; the benefits which each is anxious to acquire for himself, he reaps in the greatest abundance from the union and conjunction in society. The pursuits of vanity are quite contrary. The portion of time and attention mankind are willing to spare from their avocations and pleasures, to devote to the admiration of each other is so small, that every successful adventurer is felt to have impaired the common stock. The success of one is the disappointment of multitudes. For though there be many rich, many virtuous, many wise men, fame must necessarily be the portion of but few. Hence every vain man, every man in whom vanity is the ruling passion, regarding his rival as his enemy, is strongly tempted to rejoice in his miscarriage, and repine at his success.

Besides, as the passions are seldom seen in a simple, unmixed state, so vanity, when it succeeds, degenerates into arrogance; when it is

disappointed (and it is often disappointed) it is exasperated into malignity, and corrupted into envy. In this stage the vain man commences a determined misanthropist. He detests that excellence he cannot reach. He detests his species, and longs to be revenged for the unpardonable injustice he has sustained in their insensibility to his merits. He lives upon the calamities of the world; the vices and miseries of men are his element and his food. Virtue, talents, and genius, are his natural enemies, which he persecutes with instinctive eagerness, and unremitting hostility. There are who doubt the existence of such a disposition; but it certainly issues out of the dregs of disappointed vanity; a disease which taints and vitiates the whole character wherever it prevails. It forns the heart to such a profound indifference to the welfare of others, that whatever appearances he may assume, or however wide the circle of his seeming virtues may extend, you will infallibly find the vain man is his own centre. Attentive only to himself, absorbed in the contemplation of his own perfections, instead of feeling tenderness for his fellow-creatures as members of the same family, as beings with whom he is appointed to act, to suffer, and to sympathise; he considers life as a stage on which he is performing a part, and mankind in no other light than spectators. Whether he smiles or frowns, whether his path is adorned with rays of beneficence, or his steps are dyed in blood, an attention to self is the spring of every movement, and the motive to which every action is referred.

His apparent good qualities lose all their worth, by losing all that is simple, genuine, and natural; they are even pressed into the service of vanity, and become the means of enlarging its power. The truly good man is jealous over himself, lest the notoriety of his best actions, by blending itself with their motive, should diminish their value; the vain man performs the same actions for the sake of that notoriety. The good man quietly discharges his duty, and shuns ostentation; the vain man considers every good deed lost that is not publicly displayed. The one is intent upon realities, the other upon semblances: the one aims to *be* virtuous, the other to *appear* so. Nor is a mind inflated with vanity more disqualified for right action than just speculation, or better disposed to the pursuit of truth, than the practice of virtue. To such a mind the simplicity of truth is disgusting. Careless of the improvement of mankind, and intent only upon astonishing with the appearance of novelty, the glare of paradox will be preferred to the light of truth; opinions will be embraced, not because they are just, but because they are new; the more flagitious, the more subversive of morals, the more alarming to the wise and good, the more welcome to men who estimate their literary powers by the mischief they produce, and who consider the anxiety and terror they impress as the measure of their renown. Truth is simple and uniform, while error may be infinitely varied; and as it is one thing to start paradoxes, and another to make discoveries, we need the less wonder at the prodigious increase of modern philosophers.

We have been so much accustomed to consider extravagant self-estimation merely as a *ridiculous* quality, that many will be surprised to find it treated as a vice, pregnant with serious mischief to society. But to form a judgment on its influence on the manners and happiness of a nation, it is necessary to look only at its effects in a family; for bodies of men are only collections of individuals, and the greatest nation is nothing more than an aggregate of a number of families. Conceive of a domestic circle, in which each member is elated with a most extravagant opinion of himself, and a proportionable contempt of every other; is full of little contrivances to catch applause, and whenever he is not praised is sullen and disappointed. What a picture of disunion, disgust, and animosity, would such a family present! How utterly would domestic affection be extinguished, and all the purposes of domestic society be defeated! The general prevalence of such dispositions must be accompanied by an equal proportion of general misery. The tendency of pride to produce strife and hatred is sufficiently apparent from the pains men have been at to contract a system of politeness, which is nothing more than a sort of mimic humility, in which the sentiments of an offensive self-estimation are so far disguised and suppressed, as to make them compatible with the spirit of society; such a mode of behaviour as would naturally result from an attention to the apostolic injunction: 'Let nothing be done through strife or vain glory; but in lowliness of mind let each esteem others better than themselves.' But if the semblance be of such importance, how much more useful the reality! If the mere garb of humility be of such indispensable necessity, that without it society could not subsist, how much better still would the harmony of the world be preserved, were the condescension, deference, and respect, so studiously displayed, a true picture of the heart!

The same restless and eager vanity which disturbs a family, when it is permitted, in a great national crisis, to mingle with political affairs, distracts a kingdom; infusing into those intrusted with the enaction of laws, a spirit of rash innovation and daring empiricism, a disdain of the established usages of mankind, a foolish desire to dazzle the world with new and untried systems of policy, in which the precedents of antiquity, and the experience of ages are only consulted to be trodden under foot; and into the executive department of government, a fierce contention for pre-eminence, an incessant struggle to supplant and destroy, with a propensity to calumny and suspicion, proscription, and massacre.

We shall suffer the most eventful season ever witnessed in the affairs of men to pass over our heads to very little purpose, if we fail to learn from it some awful lessons on the nature and progress of the passions. The true light in which the French revolution ought to be contemplated, is that of a grand experiment on human nature. Among the various passions which that revolution has so strikingly displayed, none is more conspicuous than vanity; nor is it

less difficult, without adverting to the national character of the people, to account for its extraordinary predominance. Political power, the most seducing object of ambition, never before circulated through so many hands; the prospect of possession was never before presented to so many minds. Multitudes, who by their birth and education, and not unfrequently by their talents, seemed destined to perpetual obscurity, were, by the alternate rise and fall of parties, elevated into distinction, and shared in the functions of government. The short-lived forms of power and office glided with such rapidity through successive ranks of degradation, from the court to the very dregs of the populace, that they seemed rather to solicit acceptance, than to be a prize contended for.* Yet, as it was still impossible for all to possess authority, though none were willing to obey, a general impatience to break the ranks and rush into the foremost ground, maddened and infuriated the nation, and overwhelmed law, order, and civilization, with the violence of a torrent.

If such be the mischiefs both in public and private life resulting from an excessive self-estimation, it remains next to be considered, whether Providence has supplied any medicine to correct it; for the reflection on excellencies, whether real or imaginary, is always attended with pleasure to the possessor; it is a disease deeply seated in our nature.

Suppose there were a great and glorious Being always present with us, who had given existence, with numberless other blessings, and on whom we depended each instant, as well for every present enjoyment as for every future good: suppose again we had incurred the just displeasure of such a Being, by ingratitude and disobedience, yet that in great mercy he had not cast us off, but assured us he was willing to pardon and restore us on our humble entreaty and sincere repentance; say, would not an habitual sense of the presence of this Being, self-reproach for having displeased him, and an anxiety to recover his favor, be the most effectual antidote to pride! But such are the leading discoveries made by the Christian revelation, and such the dispositions which a practical belief of it inspires. Humility is the first-fruit of religion. In the mouth of our Lord there is no maxim so frequent as the following: ‘Whosoever exalteth himself shall be abased, and he that humbleth himself shall be exalted.’ Religion, and that alone, teaches *absolute* humility; by which I mean a sense of our absolute nothingness in the view of infinite greatness and excellence. That sense of inferiority which results from the comparison of men with each other is often an unwelcome sentiment forced upon the mind, which may rather embitter the temper than soften it: that which devotion impresses is soothing and delightful. The devout man loves to lie low at the footstool of his Creator, because it is there he attains the most lively perceptions of the divine excellence, and the most tranquil confidence in the divine favor. In so august a presence he sees all distinctions lost, and all

beings reduced to the same level. He looks at his superiors without envy, and his inferiors without contempt; and when from this elevation he descends to mix in society, the conviction of superiority, which must in many instances be felt, is a calm inference of the understanding, and no longer a busy, importunate passion of the heart.

‘The wicked (says the Psalmist)—through the pride of their countenance, will not seek after God: God is not in all their thoughts.’ When we consider the incredible vanity of the atheistical sect, together with the settled malignity and unrelenting rancour with which they pursue every vestige of religion, is it uncandid to suppose that its humbling tendency is one principal cause of their enmity; that they are eager to displace a Deity from the minds of men, that they may occupy the void; to crumble the throne of the Eternal into dust, that they may elevate themselves on its ruins, and that as their licentiousness is impatient of restraint, so their pride disdains a superior?

We mentioned a ferocity of character as one effect of sceptical impiety. It is an inconvenience attending a controversy with those with whom we have few principles in common, that we are often in danger of reasoning inconclusively, for the want of its being clearly known and settled what our opponents admit and what they deny. The persons, for example, with whom we are at present engaged, have discarded humility and modesty from the catalogue of virtues; on which account, we have employed the more time in evincing their importance: but, whatever may be thought of humility as a *virtue*, it surely will not be denied, that inhumanity is a most detestable vice; a vice however, which scepticism has a most powerful tendency to inflame.

As we have already shown that pride hardens the heart, and that religion is the only effectual antidote—the connexion between irreligion and inhumanity is in this view obvious. But there is another light in which this part of the subject may be viewed, in our opinion, much more important, though seldom adverted to. The supposition that man is a moral and accountable being, destined to survive the stroke of death, and to live in a future world in a never ending state of happiness or misery, makes him a creature of incomparably more consequence than the opposite supposition. When we consider him placed here by an Almighty ruler, in a state of probation, and that the present life is his period of trial, the first link in a vast and interminable chain which stretches into eternity, he assumes a dignified character in our eyes. Every thing which relates to him becomes interesting; and to triffe with his happiness is felt to be the most unpardonable levity. If such be the destination of man, it is evident that in the qualities which fit him for it his principal dignity consists: his moral greatness in his true greatness. Let the sceptical principles be admitted, which represent him, on the contrary, as the offspring of chance, connected with no superior power, and sinking into annihilation at death, and he is a contemptible creature, whose existence and

*Æquo pulsat pede pauperum tabernas regi que tures.

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happiness are insignificant. The characteristic difference is lost between him and the brute creation, from which he is no longer distinguished, except by the vividness and multiplicity of his perceptions.

If we reflect on that part of our nature which disposes us to humanity, we shall find that, where we have no particular attachment, our sympathy with the sufferings and concern for the destruction of sensitive beings, are in proportion to their supposed importance in the general scale; or, in other words, to their supposed capacity of enjoyment. We feel, for example, much more at witnessing the destruction of a man, than of an inferior animal, because we consider it as involving the extinction of a much greater sum of happiness. For the same reason he who could shudder at the slaughter of a large animal, will see a thousand insects perish without a pang. Our sympathy with the calamities of our fellow-creatures is adjusted to the same proportions; for we feel more powerfully affected with the distresses of fallen greatness than with equal or greater distresses sustained by persons of inferior rank; because, having been accustomed to associate with an elevated station, the idea of superior happiness, the loss appears the greater, and the wreck more extensive. But the disproportion in importance between man and the meanest insect, is not so great as that which subsists between man considered as *mortal* and *immortal*; that is as between man as he is represented by the system of scepticism, and that of divine revelation: for the enjoyment of the meanest insect bears some proportion, though a very small one, to the present happiness of man; but the happiness of time bears none at all to that of eternity. The sceptical system, therefore, sinks the importance of human existence to an inconceivable degree. From these principles result the following important inference—that to extinguish human life by the hand of violence, must be quite a different thing in the eyes of a sceptic, from what it is in the eyes of a christian. With the sceptic it is nothing more than diverting the course of a little red fluid, called blood; it is merely lessening the number by one of many millions of fugitive contemptible creatures. The christian sees in the same event an accountable being cut off from a state of probation, and hurried, perhaps unprepared, into the presence of his Judge, to hear that final, that irrevocable sentence, which is to fix him for ever in an unalterable condition of felicity or woe. The former perceives in death nothing but its physical circumstances; the latter is impressed with its moral consequences. It is the moral relation which man is supposed to bear to a superior power, the awful idea of accountability, the influence which his present dispositions and actions are conceived to have upon his eternal destiny, more than any superiority of intellectual powers abstracted from these considerations, which invest him with such mysterious grandeur, and constitute the firmest guard on the sanctuary of human life. This reasoning, it is true, serves more immediately to show how the disbelief of a future state endangers the security of life; but,

though this be its *direct* consequence, it extends by analogy much further, since he who has learned to sport with the *lives* of his fellow-creatures will feel but little solicitude for their welfare in any other instance; but, as the greater includes the less, will easily pass from this to all the inferior gradations of barbarity.

As the advantage of the armed over the unarmed is not seen till the moment of attack, so in that tranquil state of society in which law and order maintain their ascendancy, it is not perceived, perhaps not even suspected, to what an alarming degree the principles of modern infidelity leave us naked and defenceless. But let the state be convulsed, let the mounds of regular authority be once overflowed, and the still small voice of law drowned in the tempest of popular fury (events which recent experience shows to be possible), it will then be seen that atheism is a school of ferocity; and that having taught its disciples to consider mankind as little better than a nest of insects, they will be prepared in the fierce conflicts of party to trample upon them without pity, and extinguish them without remorse.

It was late before the atheism of Epicurus gained footing at Rome; but its prevalence was soon followed by such scenes of proscription, confiscation, and blood, as were then unparalleled in the history of the world; from which the republic being never able to recover itself, after many unsuccessful struggles, exchanged liberty for repose, by submission to absolute power. Such were the effects of atheism at Rome. An attempt was made to establish a similar system in France, the consequences of which are too well known to render it requisite for us to shock your feelings by a recital. The only doubts that can arise is, whether the barbarities which stained the revolution in that unhappy country, are justly chargeable on the prevalence of atheism. Let those who doubt of this recollect that the men who by their activity and talents, prepared the minds of the people for that great change, *Voltaire*, *D'Alembert*, *Diderot*, *Rousseau*, and others, were avowed enemies of revelation; that in all their writings the diffusion of scepticism and revolutionary principles went hand in hand, that the fury of the most sanguinary parties was especially pointed against the christian priesthood and religious institutions, without once pretending, like other persecutors, to execute the vengeance of God (whose name they never mentioned) upon his enemies; that their atrocities were committed with a wanton levity and brutal merriment; that the reign of atheism was avowedly and expressly the reign of terror; that in the full madness of their career, in the highest climax of their horrors, they shut up the temples of God, abolished his worship, and proclaimed death to be an eternal sleep; as if by pointing to the silence of the sepulchre, and the sleep of the dead, these ferocious barbarians meant to apologize for leaving neither sleep, quiet, nor repose, to the living.

As the heathens fabled that Minerva issued full armed from the head of Jupiter, so no sooner were the speculations of atheistical philo-

sophy matured, than they gave birth to a ferocity which converted the most polished people in Europe into a horde of assassins; the seat of voluptuous refinement, of pleasure, and of arts, into a theatre of blood.

Having already shown that the principles of infidelity facilitate the commission of crimes, by removing the restraints of fear; and that they foster the arrogance of the individual, while they inculcate the most despicable opinion of the species; the inevitable result is, that a haughty self-confidence, a contempt of mankind, together with a daring defiance of religious restraints, are the natural ingredients of the atheistical character; nor is it less evident that these are, of all others, the dispositions which most forcibly stimulate to violence and cruelty.

We may, therefore regard it as a maxim never to be effaced or forgotten, that atheism is an inhuman, bloody, ferocious system, equally hostile to every useful restraint, and to every virtuous affection; that leaving nothing above us to excite awe, nor around us to awaken tenderness, it wages war with heaven and with earth; its first object is to dethrone God, its next to destroy man.

There is a third vice not less destructive to society than either of those which have been already mentioned, to which the system of modern infidelity is favourable; that is unbridled sensuality, the licentious and unrestrained indulgence of those passions which are essential to the continuation of the species. The magnitude of these passions, and their supreme importance to the existence as well as the peace and welfare of society, have rendered it one of the first objects of solicitude with every wise legislator, to restrain them by such laws, and to confine their indulgence within such limits as shall best promote the great ends for which they were implanted.

The benevolence and wisdom of the Author of Christianity, are eminently conspicuous in the laws he has enacted on this branch of morals; for while he authorizes marriage, he restrains the vagrancy and caprice of the passions, by forbidding polygamy and divorce; and well knowing that offences against the laws of chastity usually spring from an ill-regulated imagination, he inculcates purity of heart. Among innumerable benefits which the world has derived from the Christian religion, a superior refinement in the sexual sentiments, a more equal and respectful treatment of women, greater dignity and permanence conferred on the institution of marriage, are not the least considerable; in consequence of which, the purest affections, and the most sacred duties, are grafted on the stock of the strongest instincts.

The aim of all the leading champions of infidelity is to rob mankind of these benefits, and throw them back into a state of gross and brutal sensuality. In this spirit, Mr. Hume represents the private conduct of the profligate Charles, whose debaucheries polluted the age, as a just subject of panegyric. A disciple in the same school had the unblushing effrontery to stigmatize marriage as the worst of all monopolies; and, in a narrative of his licentious

amours, made a formal apology for departing from his principles, by submitting to its restraints. The popular productions on the continent, which issue from the atheistical school, are incessantly directed to the same purpose.

Under every possible aspect in which infidelity can be viewed, it extends the dominion of sensuality: it repeals and abrogates every law by which divine revelation has, under such awful sanctions, restrained the indulgence of the passions. The disbelief of a supreme omniscient Being, which it inculcates, releases its disciples from an attention to the *heart*, from every care but the preservation of outward decorum; and the exclusion of the devout affections, and an unseen world, leaves the mind immersed in visibly sensible objects.

There are two sorts of pleasures, corporeal and mental. Though we are indebted to the senses for all our perceptions *originally*, yet those which are at the furthest remove from their *immediate impressions*, confer the most elevation on the character, since in proportion as they are multiplied and augmented, the slavish subjection to the senses is subdued. Hence the true and only antidote to debasing sensuality, is the possession of a fund of that *kind of enjoyment* which is independent of the corporeal appetites. Inferior in the perfection of several of his senses to different parts of the brute creation, the superiority of man over them all consists in his superior power of multiplying by new combinations his mental perceptions, and thereby of creating to himself resources of happiness separate from external sensation.

In the scale of enjoyment, the first remove from sense are the pleasures of reason and society; at the next are the pleasures of devotion and religion. The former, though totally distinct from those of *sense*, are yet less perfectly adapted to moderate their excesses than the last, as they are in a great measure conversant with visible objects. The religious affections and sentiments are, in fact, and were intended to be, the *proper antagonist* of sensuality; the great deliverer from the thralldom of the appetites, by opening a spiritual world, and inspiring hopes and fears, and consolations and joys, which bear no relation to the material and sensible universe. The criminal indulgence of sensual passions admits but of two modes of prevention; the establishment of such laws and maxims in society as shall render lewd profligacy impracticable or infamous, or the infusion of such principles and habits as shall render it distasteful. Human legislators have encountered the disease in the first, the truths and sanctions of revealed religion in the last, of these methods: to both of which the advocates of modern infidelity are equally hostile.

From the records of revelation, we learn that marriage, or the *permanent union* of the sexes, was ordained by God, and existed under different modifications in the early infancy of mankind, without which they could never have emerged from barbarism. For conceive only what eternal discord, jealousy, and violence would ensue, were the objects of the tenderest affections secured to their possessor by no law

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or tie of moral obligation : were domestic enjoyments disturbed by incessant fear, and licentiousness inflamed by hope. Who could find sufficient tranquillity of mind to enable him to plan or execute any continued scheme of action, or what room for arts or sciences, or religion, or virtue, in that state in which the chief earthly happiness was exposed to every lawless invader; where one was racked with an incessant anxiety to keep what the other was equally eager to acquire? It is not probable in itself, independent of the light of scripture, that the benevolent Author of the human race ever placed them in so wretched a condition at first; it is certain they could not remain in it long without being exterminated. Marriage, by shutting out these evils, and enabling every man to rest secure in his enjoyments, is the great civilizer of the world : with this security, the mind is at liberty to expand in generous affections, has leisure to look abroad, and engage in the pursuits of knowledge, science, and virtue.

Nor is it in this way only that marriage institutions are essential to the welfare of mankind. They are sources of tenderness as well as the guardians of peace. Without the permanent union of the sexes, there can be no permanent families : the dissolution of nuptial ties involves the dissolution of domestic society. But domestic society is the seminary of social affections, the cradle of sensibility, where the first elements are acquired of that tenderness and humanity which cement mankind together; and which, were they entirely extinguished, the whole fabric of social institutions would be dissolved.

Families are so many centres of attraction, which preserve mankind from being scattered and dissipated by the repulsive power of selfishness. The order of nature is evermore from particulars to generals. As in the operations of intellect we proceed from the contemplation of individuals to the formation of general abstractions, so in the development of the passions in like manner, we advance from private to public affections; from the love of parents, brothers, and sisters, to those more expanded regards which embrace the immense society of human kind.

In order to render men benevolent, they must first be made tender: for benevolent affections are not the offspring of reasoning; they result from that culture of the heart, from those early impressions of tenderness, gratitude, and sympathy, which the endearments of domestic life are sure to supply, and for the formation of which it is the best possible school.

The advocates of infidelity invert this eternal order of nature. Instead of inculcating the private affections, as a discipline by which the mind is prepared for those of a more public nature, they set them in direct opposition to each other, they propose to build general benevolence on the destruction of individual tenderness, and to make us love the whole species more, by loving every particular part of it less. In pursuit of this chimerical project, gratitude, humility, conjugal, parental, and filial affection, together with every other social disposition, are

reprobated—virtue is limited to a passionate attachment to the general good. It is natural to ask, when all the tenderness of life is extinguished, and all the bands of society are untwisted, from whence this ardent affection for the general good is to spring?

When this savage philosophy has completed its work, when it has taught its disciples to look with perfect indifference on the offspring of his body, and the wife of his bosom, to estrange himself from his friends, insult his benefactors, and silence the pleadings of gratitude and pity; will he, by thus divesting himself of all that is human, be better prepared for the disinterested love of his species? Will he become a philanthropist only because he has ceased to be a man? Rather, in this total exemption from all the feelings which humanize and soften, in this chilling frost of universal indifference, may we not be certain selfishness unmangled and uncontrolled, will assume the empire of his heart; and that, under pretence of advancing the general good, an object to which the fancy may give innumerable shapes, he will be prepared for the violation of every duty, and the perpetration of every crime! Extended benevolence is the last and most perfect fruit of the private affections; so that to expect to reap the former from the extinction of the latter, is to oppose the means to the end; is as absurd as to attempt to reach the summit of the highest mountain without passing through the intermediate spaces, or to hope to attain the heights of science by forgetting the first elements of knowledge. These absurdities have sprung, however, in the advocates of infidelity, from an ignorance of human nature, sufficient to disgrace even those who did not style themselves philosophers. Presuming, contrary to the experience of every moment, that the affections are awakened by *reasoning*, and perceiving that the general good is an incomparably greater object *in itself* than the happiness of any limited number of individuals, they inferred nothing more was necessary than to exhibit it in just dimensions, to draw the *affections* towards it, as though the fact of the superior populousness of China to Great Britain, needed but to be known to render us indifferent to our domestic concerns, and lead us to direct all our anxiety to the prosperity of that vast, but remote empire.

It is not the province of reason to awaken new passions, or open new sources of sensibility; but to direct us in the attainment of those objects which nature has already rendered pleasing, or to determine among the interfering inclinations and passions which sway the mind, which are the fittest to be preferred.

Is a regard to the general good, then you will reply, to be excluded from the motives of action? Nothing is more remote from our intention: but as the nature of this motive has in our opinion, been much misunderstood by some good men, and abused by others, of a different description, to the worst of purposes, permit us to declare in a few words, what appears to us, to be the truth on this subject.

The welfare of the whole system of being, must be allowed to be, *in itself*; the object of all

others the most worthy of being pursued; so that could the mind distinctly embrace it and discern at every step *what action* would infallibly promote it, we should be furnished with a sure criterion of right and wrong, an unerring guide, which would supersede the use and necessity of all inferior rules, laws, and principles.

But this being impossible, since the good of the *whole* is a motive so loose and indeterminate, and embraces such an infinity of relations, that before we could be certain what action it prescribed, the season of action would be past; to weak, short-sighted, mortals, Providence has assigned a sphere of agency less grand, and extensive indeed, but better suited to their limited powers, by implanting certain *affections* which it is their duty to cultivate, and suggesting particular rules to which they are bound to conform. By these provisions the boundaries of virtue are easily ascertained, at the same time that its ultimate object, the good of the whole is secured; for, since the happiness of the entire system results from the happiness of the several parts, the affections, which confine the attention *immediately* to the latter, conspire in the end to the promotion of the former; as the labourer, whose industry is limited to a corner of a large building, performs his part towards rearing the structure much more effectually than if he extended his care to the whole.

As the interest, however, of any limited number of persons may not only contribute, but, may possibly be directly opposed to the general good (the interest of a family, for example, to that of a province, or of a nation to that of the world), Providence has so ordered it, that in a well-regulated mind there springs up, as we have already seen, besides particular attachments, *an extended regard to the species*, whose office is two-fold: not to *destroy* and *extinguish* the more private affections, which is mental parricide; but first, as far as is consistent with the claims of those who are immediately committed to our care, to *do good to all men*; secondly, to exercise a jurisdiction and control over the private affections, so as to prohibit their indulgence, whenever it would be attended with *manifest detriment* to the whole. Thus every part of our nature is brought into action; all the practical principles of the human heart find an element to move in, each in its different sort and manner conspiring, without mutual collisions, to maintain the harmony of the world, and the happiness of the universe.

Three circumstances attending the promulgation of modern infidelity, which at the time, were equally new and alarming, are worthy of peculiar consideration.

1. It was the first attempt ever witnessed on an extensive scale to establish the *principles of Atheism*; the first effort which history has recorded to disannul and extinguish the belief of all superior powers; the consequence of which, had it succeeded, would have placed mankind in a situation never before experienced, not even during the ages of Pagan darkness. The system of Polytheism was as remote from modern infidelity as from true religion. Amidst that rubbish of superstition, the product of fear, ignorance,

and vice, which had been accumulating for ages, some faint embers of sacred truth remained unextinguished; the interposition of unseen powers in the affairs of men was believed and revered, the sanctity of oaths was maintained, the idea of *revelation* and of *tradition* as a source of religious knowledge, was familiar; a useful persuasion of the existence of a future world was kept alive, and the greater gods were looked up to as the guardians of the public welfare, the patrons of those virtues which promote the prosperity of states, and the avengers of injustice, perfidy, and fraud.

Of whatever benefit superstition might formerly be productive, by the scattered particles of truth which it contained, these advantages can now only be reaped from the soil of true religion; nor is there any alternative left, than the belief of Christianity, or absolute Atheism. In the revolution of the human mind, exploded *opinions* are often revived, but an exploded superstition never recovers its credit. The pretension to divine revelation is so august and commanding, that when its falsehood is once discerned, it is covered with all the ignominy of detected imposture; it falls from such a height, (to change the figure,) that it is inevitably crumbled into atoms. Religions, whether false or true, are not creatures of arbitrary institution. After discrediting the principles of piety, should our modern free-thinkers find it necessary, in order to restrain the excesses of ferocity, to seek for a substitute in some popular superstition; it will prove a vain and impracticable attempt: they may recall the names, restore the altars, and revive the ceremonies, but to re-kindle the spirit of heathenism, will exceed their power; because it is impossible to enact ignorance by law, or to repeal by legislative authority, the dictates of reason, and the light of science.

2. The efforts of infidels to diffuse the principles of infidelity among the common people is another alarming symptom peculiar to the present time. Hume, Bolingbroke, and Gibbon, addressed themselves solely to the more polished classes of the community, and would have thought their refined speculations debased by an attempt to enlist disciples from among the populace. Infidelity has lately grown condescending: bred in the speculations of a daring philosophy, immured at first in the cloisters of the learned, and afterwards nursed in the lap of voluptuousness and of courts; having at length reached its full maturity, it boldly ventures to challenge the suffrages of the people, solicits the acquaintance of peasants and mechanics, and seeks to draw whole nations to its standard. It is not difficult to account for this new state of things: while infidelity was rare, it was employed as the instrument of literary vanity; its wide diffusion having disqualified it for answering that purpose, it is now adopted as the organ of political convulsion. Literary distinction is conferred by the approbation of a few: but the total subversion and overthrow of society demands the concurrence of millions.

3. The infidels of the present day are the first sophists who have presumed to innovate in the very substance of morals. The dispute on

moral questions, hitherto agitated amongst philosophers, have respected the *grounds* of duty, not the *nature* of duty itself; or they have been merely metaphysical, and related to the *history* of moral sentiments in the mind, the sources and principles from which they were most easily deduced; they never turned on the quality of those dispositions and actions which were to be denominated virtuous. In the firm persuasion that the love and fear of the Supreme Being, the sacred observation of promises and oaths, reverence to magistrates, obedience to parents, gratitude to benefactors, conjugal fidelity, and parental tenderness, were primary virtues, and the chief support of every commonwealth, they were unanimous. The curse denounced upon such as remove ancient land-marks, upon those who call good evil, and evil good, put light for darkness, and darkness for light, who employ their faculties to subvert the eternal distinctions of right and wrong, and thus to poison the streams of virtue at their source, falls with accumulated weight on the advocates of modern infidelity, and on them alone.

By permitting to a certain extent the prevalence of infidelity, Providence is preparing new triumphs for religion. In asserting its authority, the preachers of the gospel have hitherto found it necessary to weigh the prospects of immortality against the interests of time; to strip the world of its charms, to insist on the deceitfulness of pleasure, the unsatisfying nature of riches, the emptiness of grandeur and the nothingness of a mere worldly life. Topics of this nature will always have their use; but it is not by such representations alone that the importance of religion is evinced. The prevalence of impiety has armed us with new weapons in its defence.

Religion being primarily intended to make men ‘wise unto salvation,’ the support it ministers to social order, the stability it confers on government and laws, is a subordinate species of advantage which we should have continued to enjoy without reflecting on its cause, but for the developement of deistical principles, and the experiment which has been made of their effects in a neighbouring country. It had been the constant boast of infidels, that their system, more liberal and generous than Christianity, needed but to be tried to produce an immense accession to human happiness; and Christian nations, careless and supine, retaining little of religion but the profession, and disgusted with its restraints, lent a favourable ear to these pretensions. God permitted the trial to be made. In one country, and that the centre of Christendom, revelation underwent a total eclipse, while atheism, performing on a darkened theatre its strange and fearful tragedy, confounded the first elements of society, blinded every age, rank and sex, in indiscriminate proscription and massacre, and convulsed all Europe to its centre; that the imperishable memorial of these events might teach the last generations of mankind to consider religion as the pillar of society—the safe-guard of nations—the parent of social order, which alone has power to curb the fury of the passions, and secure to every one his rights; to the laborious,

the reward of their industry—to the rich, the enjoyment of their wealth—to nobles, the preservation of their honors, and to princes, the stability of their thrones.

We might ask the patrons of infidelity, what fury impels them to attempt the subversion of Christianity. Is it that they have discovered a better system? To what virtues are their principles favourable? Or is there one which Christians have not carried to a higher perfection than any of which their party can boast? Have they discovered a more excellent rule of life, or a better hope in death than that which the scriptures suggest? Above all, what are the pretensions on which they rest their claims to be the guides of mankind, or which embolden them to expect we should trample upon the experience of ages, and abandon a religion which has been attested by a train of miracles and prophecies, in which millions of our forefathers have found a refuge in every trouble, and consolation in the hour of death; a religion which has been adorned with the highest sanctity of character, and splendour of talents, which enrolls amongst its disciples the names of Bacon, Newton, and Locke, the glory of their species, and to which these illustrious men were proud to dedicate the last and best fruits of their immortal genius?

If the question at issue is to be decided by argument, nothing can be added to the triumph of Christianity; if by an appeal to authority, what have our adversaries to oppose to these great names? Where are the infidels of such pure, uncontaminated morals, unshaken probity, and extended benevolence, that we should be in danger of being seduced into impiety by their example? Into what obscure recesses of misery, into what dungeons have their philanthropists penetrated, to lighten the fetters and relieve the sorrows of the helpless captive? What barbarous tribes have their Apostles visited? What distant climes have they explored, encompassed with cold, nakedness, and want, to diffuse principles of virtue, and blessings of civilization? Or will they rather choose to wave their pretensions to this extraordinary, and in their eyes, eccentric species of benevolence, (for infidels, we know, are sworn enemies to enthusiasm of every sort) and rest their character on their political exploits; on their efforts to re-animate the virtue of a sinking state, to restrain licentiousness to calm the tumults of popular fury; and, by inculcating the spirit of justice, moderation and pity for fallen greatness, to mitigate the inevitable horrors of revolution? Our adversaries will at least have the discretion, if not the modesty, to secede from the test.

More than all, their infatuated eagerness, their parricidal zeal to extinguish a sense of Deity, must excite astonishment and horror. Is the idea of an Almighty and perfect Ruler unfriendly to any passion which is consistent with innocence, or an obstruction to any design which it is not shameful to avow. Eternal God! on what are thine enemies intent? What are those enterprizes of guilt and horror, that, for the safety of their performers, require to be enveloped in a darkness which the eye of heaven must not pierce! Miserable men! Proud of

being the offspring of chance; in love with universal disorder; whose happiness is involved in the belief of there being no witness to their designs, and who are at ease only because they suppose themselves inhabitants of a forsaken and fatherless world.

Having been led by the nature of the subject to consider chiefly the manner in which sceptical impiety affects the welfare of states, it is the more requisite to warn you against that most fatal mistake of regarding religion as an engine of policy; and to recall to your recollection that the concern we have in it is much more as *individuals* than as *collective bodies*, and far less temporal than eternal. The happiness which it confers in the present life comprehends the blessings which it scatters by the way in its march to immortality. That future condition of being which it ascertains, and for which its promises and truths are meant to prepare us, is the ultimate end of human societies, the final scope and object of present existence; in comparison of which all the revolutions of nations, and all the vicissitudes of time, are light and transitory. ‘Godliness has, it is true, the promise of the life that now is; but chiefly of that which is to come.’ Other acquisitions may be requisite to make men great; but, be assured, the religion of Jesus is alone sufficient to make them good and happy. Powerful sources of consolation in sorrow, unshaken fortitude amidst the changes and perturbations of the world, humility remote from meanness, and dignity unrestrained by pride, contentment in every station, passions pure and calm, with habitual serenity, the full enjoyment of life, undisturbed by the dread of dissolution or the fear of an hereafter, are its invaluable gifts. To these enjoyments, however, you will necessarily continue strangers, unless you resign yourselves wholly to its power; for the consolations of religion are reserved to reward, to sweeten, and to stimulate obedience. Many, without renouncing the profession of Christianity, without formally rejecting its distinguishing doctrines, live in such an habitual violation of its laws, and contradiction to its spirit, that, conscious they have more to fear than to hope from its truth, they are never able to contemplate it without terror. It haunts their imagination, instead of tranquillizing their hearts, and hangs with depressing weight on all their enjoyments and pursuits. Their religion, instead of comforting them under their troubles, is itself their greatest trouble, from which they seek refuge in the dissipation and vanity of the world, until the throbs and tumults of conscience force them back upon religion. Thus suspended betwixt opposite powers, the sport of contradictory influences, they are disqualified for the happiness of both worlds; and neither enjoy the pleasures of sin, nor the peace of piety. Is it surprising to find a mind thus bewildered in uncertainty, and dissatisfied with itself, courting deception and embracing with eagerness every pretext to mutilate the claims and enervate the authority of Christianity; forgetting that it is of the very essence of the religious principle to preside and control, and that it is impossible to ‘serve God and mammon?’ It is this class of

professors who are chiefly in danger of being entangled in the snares of infidelity.

The champions of infidelity have much more reason to be ashamed than to boast of such converts. For what can be a stronger presumption of the falsehood of a system, than that it is the opiate of a restless conscience; that it prevails with minds of a certain description, not because they find it true, but because they feel it necessary; and that in adopting it they consult less with their reason than with their vices and their fears? It requires but little sagacity to foresee that speculations which originate in guilt must end in ruin. Infidels are not themselves satisfied with the truth of their system: for had they any settled assurance of its principles, in consequence of calm dispassionate investigation, they would never disturb the quiet of the world by their attempts to proselyte; but would lament their own infelicity, in not being able to perceive sufficient evidence for the truth of religion, which furnishes such incentives to virtue, and inspires such exalted hopes. Having nothing to substitute in the place of religion, it is absurd to suppose that, in opposition to the collective voice of every country, age, and time, proclaiming its necessity, solicitude for the welfare of mankind impels them to destroy it.

To very different motives must their conduct be imputed. More like conspirators than philosophers, in spite of the darkness with which they endeavour to surround themselves, some rays of awe-insome conviction will penetrate, some secret apprehensions that all is not right will make themselves felt, which they find nothing so effectual to quell as an attempt to enlist fresh disciples, who, in exchange for new principles, impart confidence, and diminish fear. For the same reason it is seldom they attack Christianity by argument: their favourite weapons are ridicule, obscenity, and blasphemy; as the most miserable outcasts of society are, of all men, found most to delight in vulgar merriment and senseless riot.

JESUS CHRIST seems to have ‘his fan in his hand, to be thoroughly purging his floor;’ and nominal Christians will probably be scattered like chaff. But has *real* Christianity any thing to fear? Have not the degenerate manners and corrupt lives of multitudes in the visible church been, on the contrary, the principal occasion of scandal and offence? Infidelity, without intending it, is gradually removing this reproach: possessing the property of attracting to itself the morbid humours which pervade the church, until the christian profession, on the one hand, is reduced to a sound and healthy state, and scepticism, on the other, exhibits nothing but a mass of putridity and disease.

In a view of the final issue of the contest, we should find little cause to lament the astonishing prevalence of infidelity, but for a solicitude for the rising generation, to whom its principles are recommended by two motives, with young minds the most persuasive; the love of independence, and the love of pleasure. With respect to the first, we would earnestly entreat the young to remember that, by the unanimous consent of all ages, modesty, docility, and reverence to su-

terior years, and to parents above all, have been considered as their *appropriate virtues*, a guard assigned by the immutable laws of God and nature on the inexperience of youth; and with respect to the second, that Christianity prohibits no pleasures that are innocent, lays no restraints that are capricious; but that the sobriety and purity which it enjoins, by strengthening the intellectual powers, and preserving the faculties of mind and body in undiminished vigour, lay *the surest foundation* of present peace and future eminence. At such a season as this, it becomes an urgent duty on parents, guardians, and tutors, to watch, not only over the morals, but the principles of those committed to their care; to make it appear that a concern for their eternal welfare is their chief concern; and to imbue them early with that knowledge of the evidences of Christianity, and that profound reverence for the Scriptures, that, with the blessing of God (which, with submission, they may then expect), ‘may keep them from this hour of temptation that has come upon all the world, to try them that dwell on the earth.’

To an attentive observer of the signs of the times it will appear one of the most extraordinary phenomena of this eventful crisis, that, amidst the ravages of atheism and infidelity, real religion is evidently on the increase. ‘The kingdom of God,’ we know, ‘cometh not with observation;’ but still there are not wanting manifest tokens of its approach. The personal appearance of the Son of God was announced by the shaking of nations; his spiritual kingdom, in all probability, will be established in the midst of similar convulsions and disorders. The blasphemous impiety of the enemies of God, as well as the zealous efforts of his sincere worshippers, will doubtless be overruled to accomplish the purposes of his inerring providence: while, in inflicting the chastisements of offended Deity on corrupt communities and nations, infidelity marks its progress by devastation and ruin, by the prostration of thrones and conusssion of kingdoms; thus appalling the inhabitants of the world, and compelling them to take refuge in the church of God, the true sanctuary; the stream of divine knowledge, unobserved, is flowing in new channels, winding its course among humble valleys, refreshing thirsty deserts, and enriching with far other and higher blessings than those of commerce, the most distant climes and nations, until, agreeably to the prediction of prophecy, the ‘knowledge of the Lord shall fill and cover the whole earth.’

Within the limits of this discourse it would be impracticable to exhibit the evidences of christianity, nor is it my design; but there is one consideration, resulting immediately from my text, which is entitled to great weight with all who believe in the one living and true God as the sole object of worship. The Ephesians, in common with other Gentiles, are described in the text as being, previous to their conversion, ‘without God in the world;’ that is, without any just and solid acquaintance with his character, destitute of the knowledge of his will, the institutes of his worship, and the hopes of his favour; to the truth of which representation who-

ever possesses the slightest acquaintance with pagan antiquity must assent. Nor is it a fact less contestable, that, while human philosophy was never able to abolish idolatry in a single village, the promulgation of the gospel overthrew it in a great part (and that the most enlightened) of the world. If our belief in the unity and perfections of God, together with his moral government, and exclusive right to the worship of mankind, be founded in truth, they cannot reasonably be denied to be truths of the first importance, and infinitely to outweigh the greatest discoveries in science; because they turn the hopes, fears, and interests of man into a totally different channel from that in which they must otherwise flow. Wherever these principles are first admitted, there a new dominion is erected, and a new system of laws established.

But since all events are under divine direction, is it reasonable to suppose that the great Parent, after suffering his creatures to continue for ages ignorant of his true character, should at length, in the course of his providence, fix upon falsehood, and that alone, as the effectual method of making himself known; and that what the virtuous exercise of reason in the best and wisest men was never permitted to accomplish, he should confer on fraud and delusion the honour of effecting? It ill comports with the majesty of truth, or the character of God, to believe that he has built the noblest superstructure on the weakest foundation; or reduced mankind to the miserable alternative either of remaining destitute of the knowledge of himself, or of deriving it from the polluted source of impious imposture. We therefore feel ourselves justified on this occasion, in adopting the triumphant boast of the great apostle: ‘Where is the wise, where is the scribe, where is the disputer of this world? Hath not God made foolish the wisdom of this world? For after that, in the wisdom of God, the world by wisdom knew not God, it pleased God by the foolishness of preaching to save them that believe.’—R. HALL.

INFANTICIDE, the murder of infants, although one of the most horrible and unnatural of crimes, has (to the disgrace of our species) been found to exist as a regular and systematic custom among whole tribes of the eastern nations. The exposure of deformed children among the Spartans, indeed, the sacrifices to Moloch among the Ammonites, the 300 young nobles to Saturn at Carthage, and various other similar occurrences, are abundant evidences of the existence of infanticide in the ancient world. But it was reserved for the discoveries of modern times to find tribes of human beings regularly destroying all their female children, the mothers themselves being generally their executioners.

Some years ago it was reported by Mr. Duncan, then resident at Benares, that a sect of Hindoos in that neighbourhood, called Rājkūmārs, were in the habit of destroying all their female infants. Mr. Duncan at length succeeded in persuading this deluded tribe to relinquish their barbarous habit; and so effectually that no instance has since been discovered of an infringement of the written penal obligation that

the chiefs and other individuals of that tribe then voluntarily entered into. As well as the Rāj-kūmārs, other sects of Hindoos, in the vicinity of Benares, were found to have been in similar habits, though to a less extent, and they executed a similar deed of renunciation.

Among the military tribe of Jārejāhs infanticide was found so common, that a Jārejāh female was very rarely seen or heard of. The men of this tribe procured wives from others who reared their daughters. The number of infants, thus sacrificed, amounted, by one computation, to 30,000 annually, in the peninsula of Guzerat alone : but this colonel Walker deemed an exaggeration. To render the deed more horrible, the mother was commonly the executioner of her own offspring ; for, although women of rank had attendants and slaves to perform the office, the far greater number executed it with their own hands. Colonel Walker at length, however, prevailed on this tribe formally to relinquish and renounce by deed the practice of infanticide.

INFANTRY. This word is said to take its origin from one of the infantes of Spain, who, finding that the army commanded by the king, her father, had been defeated by the Moors, assembled a body of foot soldiers, and with them engaged and totally routed the enemy. In memory of this event, and to honor the foot soldiers, who were not before held in much consideration, they received the name of infantry. Dr. Robertson, however, well observes, in his View of the State of Europe prefixed to the History of Charles V., that it is to the Swiss discipline that Europe is indebted for the early establishment of infantry in her armies. The arms and discipline of the Swiss, he observes, were different from those of other European nations. During their long and violent struggles in defence of their liberties against the house of Austria, whose armies, like those of other considerable princes, consisted chiefly of heavy-armed cavalry, the Swiss found that their poverty, and the small number of gentlemen residing in their country, at that time barren and ill cultivated, put it out of their power to bring into the field any body of horse capable of facing the enemy. Necessity compelled them to place all their confidence in infantry ; and, in order to render it capable of withstanding the shock of cavalry, they gave the soldiers breast-plates and helmets, as defensive armour, together with long spears, halberds, and heavy swords, as weapons of offence. They formed them into large battalions, ranged in deep and close array, so that they might present on every side a formidable front to the enemy. The men at arms could make no impression on the solid strength of such a body. It repulsed the Austrians in all their attempts to conquer Switzerland. It broke the Burgundian gendarmerie, which was scarcely inferior to that of France, either in number or reputation ; and, when first called to act in Italy, it bore down, by its irresistible force, every enemy that attempted to oppose it. These repeated proofs of the decisive effects of infantry, exhibited on such conspicuous occasions, restored that service to reputation, and gradually re-established the opinion which had been long ex-

ploded, of its superior importance in the operations of war. But the glory the Swiss had acquired having inspired them with such high ideas of their own prowess and consequence as frequently rendered them mutinous and insolent, the princes who employed them became weary of depending on the caprice of foreign mercenaries, and began to turn their attention towards the improvement of their national infantry.

The German powers, having the command of men whom nature has endowed with that steady courage and persevering strength which form them to be soldiers, soon modelled their troops in such a manner that they vied with the Swiss both in discipline and valor.

The French monarchs, though more slowly and with greater difficulty, accustomed the impetuous spirit of their people to subordination and discipline ; and were at such pains to render their national infantry respectable, that, as early as the reign of Louis XII., several gentlemen of high rank had so far abandoned their ancient ideas as to condescend to enter into their service.

The Spaniards, whose situation made it difficult to employ any other than their national troops in the southern parts of Italy, which was the chief scene of their operations in that country, not only adopted the Swiss discipline, but improved upon it, by mingling a proper number of soldiers, armed with heavy muskets, in their battalions ; and thus formed that famous body of infantry which, during a century and a half, was the admiration and terror of all Europe.

The Italian states gradually diminished the number of their cavalry, and, in imitation of their more powerful neighbours, brought the strength of their armies to consist in foot-soldiers. From this period the nations of Europe have carried on war with forces more adapted to every species of service, more capable of acting in every country, and better fitted both for making conquests, and for preserving them.

INFANTRY, HEAVY-ARMED, among the ancients, were such as wore a complete suit of armour, and engaged with broad shields and long spears. They were the flower and strength of the Grecian armies, and had the highest rank of military honor.

INFANTRY, LIGHT, among the moderns, have only been in use since the middle of the seventeenth century. They have no camp equipage to carry, and their arms and accoutrements are much lighter than those of the infantry. Light infantry are the eyes of a general, and wherever there is found light cavalry, there should be light infantry. They should be accustomed to the pace of four miles an hour, as their usual marching pace, and be able to march at five miles an hour upon particular occasions. Every regiment has a company of light infantry, whose station is on the left of the regiment, the right being occupied by the grenadiers.

INFARCTION, n. s. Lat. *in* and *fuscio*. Stuffing ; constipation.

INFATUATE, adj. { Lat. *infatuuo*, from *in*

INFATUATION, n. s. { and *fatuus* ; Fr. *infatuer*. To strike with folly ; to deprive of understanding ; deprivation of reason.

INFAUSTING, n. s. Lat. *infauustus*. The

act of making unlucky. An odd and inelegant word.

INFEASIBLE, *adj.* In and feasible. Impracticable; not to be done.

INFECT' , <i>v. a.</i>	Fr. <i>infector</i> ; Lat. <i>infector</i> . To act upon by contagion; to affect with communicated qualities; to hurt by contagion; to taint; to poison; to pollute; to fill with something contagious. Infection, taint; poison; morbid miasma. Infectious, influencing by communication. Infective, having the quality of acting by contagion.
INFECTION , <i>n. s.</i>	
INFECTIOUS , <i>adj.</i>	
INFECTIOUSLY , <i>adv.</i>	

INFIX', *v. a.* Lat. *infixus*. To drive in; to set; to fasten.

INFLAME', *v. a. & v. n.* Lat. *inflammō*. In *flamer*, *n. s.* In *flammatiblity*, *n. s.* In *flammatibl*, *adj.* In *flammatibleness*, *n. s.* In *flammatiōn*, *n. s.* In *flammatiblity*, *adj.* In *flame*; to kindle or set on fire: to heat the body morbidly; figuratively, to kindle any passion; to enrage; provoke; aggravate; to grow hot: an angry inflamer, the thing or person that inflames: inflammable, inflammability, having the quality of catching fire: inflammation, the act of setting on fire; the state of being on fire; fervor of mind: inflammatory, having the power of inflaming. In chirurgery inflammation is when the blood is obstructed so as to crowd in a greater quantity into any particular part, and give it a greater color and heat than usual.—Quincy.

INFLAMMATION, in medicine. See MEDICINE.

INFLATE', *v. a.* Lat. *inflatū*. To swell with

In *flatiōn*, *n. s.* wind; to fill with air; the state of being swelled with wind; flatulence; applied figuratively to a turgid style of composition.

INFLECT', *v. a.* Lat. *inflectō*. To bend;

INFLECTION, *n. s.* To turn: to modulate the

INFECTIVE, *adj.* voice; to vary a noun or verb in its terminations: inflective, having the power of bending or turning.

INFLEXIBILITY, *n. s.* Fr. *inflexibilité*;

INFLEXIBLNESS, *n. s.* Lat. *in* and *flexi-*

INFLEXIBLE, *adj.* *bilis*. Stiffness;

INFLEXIBLY, *adv.* quality of resisting flexure; obstinacy: inflexible, unyielding; immoveable; not to be turned or changed: inflexibly, inexorably; without relaxation or intermission.

INFLEXION. Point of, in the theory of lines: that point in which the direction of the curve changes from concavity to convexity, and *vice versa*. It is particularly called *punctum inflexionis*, at the first turning, and *punctum regessionis*, when the curve returns. These points are of much interest in the theory of functions.

INFILCT', *v. a.* Fr. *infiger*; Lat. *inflico*.

INFILCTER, *n. s.* To impose as a punish-

INFILCTION, *n. s.* ment: inflicter, he who

INFILCTIVE, *adj.* punishes: infliction, the act used; the punishment itself: inflictive, that imposes a punishment.

INFLUENCE, *n. s. & v. a.* Fr. *influence*;

INFLUENT, *adj.* Lat. *influo*, *in-*

INFLUENTIAL, *adj.* *fluxus*. Power

INFLUX, *n. s.* of the celestial

INFLUXIOUS, *adj.* aspects operating upon terrestrial bodies and affairs. Ascendant power; power of directing or modifying. It was anciently followed by *into*; now, less properly, by *upon*. To act upon with directive or impulsive power; to modify to any purpose; to guide or lead to any end. Influential, flowing in: influential, exerting power: influx, the act of flowing in; infusion; influence; power: influxions, influential: the force of influence, in its figurative sense, appears to arise from the idea of something flowing in with irresistible force and carrying all before it.

INFOLD', *v. a.* In and fold. To involve; to inwrap; to inclose with involutions.

INFO'LIATE, *v. a.* Lat. *in* and *foliam*. To cover with leaves. Not much used, but elegant.

INFOR'M, *v. a. & v. n.* Fr. *informer*; Lat.

INFOR'MAT, *adj.* *informo*, *in* and *for-*

INFOR'MANT, *n. s.* *ma*. To animate;

INFOR'MATION, *n. s.* to actuate by vital

INFOR'MER, *n. s.* powers; to instruct;

INFOR'MITY, *n. s.* to supply with new

INFOR'MOUS, *adj.* knowledge; to ac-

quaint. Before the thing communicated was anciently put *with*; now generally *of*; sometimes *in*. It also signifies to offer an accusation to a magistrate; to give intelligence. Informal, without rule; irregular. Informant, informer, one who gives information or accusation; a teacher. Information, intelligence given; charge or accusation exhibited; the act of informing. Informity, shapelessness. Informous, shapeless.

INFORMATION, in law, is nearly the same in the crown office as what in other courts is called a declaration. See PROSECUTION. Informations are of two sorts, first, those which are partly at the suit of the king and partly at that of a subject; and secondly, such as are only in the name of the king. The former are usually brought upon penal statutes, which inflict a penalty upon conviction of the offender, one part to the use of the king, and another to the use of the informer. By the statute 31 Eliz. c. 5, no prosecution upon any penal statute, the suit and benefit whereof are limited in part to the king and in part to the prosecutor, can be brought by any common informer after one year is expired since the commission of the offence; nor on behalf of the crown, after the lapse of two years longer; nor, where the forfeiture is originally given only to the king, can such prosecution be had after the expiration of two years from the commission of the offence. The informations that are exhibited in the name of the king alone are also of two kinds: first, those which are truly and properly his own suits, and filed ex officio by his own immediate officer, the attorney-general; second, those in which, though the king is the nominal prosecutor, yet it is at the relation of some private person or common informer; and they are filed by the king's coroner and attorney in the court of king's bench, usually called the master of the crown office, who is for this purpose the standing officer of the public. The objects of the king's own prosecutions, filed ex officio by his own attorney-general, are properly such enormous misdemeanors as peculiarly tend to disturb or endanger his government, or to molest or affront him in the regular discharge of his royal functions. For offences (says Blackstone) so high and dangerous, in the punishing or preventing of which a moment's delay would be fatal, the law has given to the crown the power of an immediate prosecution, without waiting for any previous application to any other tribunal: which power is necessary, not only to the ease and safety, but even to the very existence, of the executive magistrate. The objects of the other species of informations, filed by the master of the crown office upon the complaint or relation of a private subject, are any gross and notorious misdemeanors, riots, batteries, libels, and other immoralities of an atrocious kind, not

peculiarly tending to disturb the government (for those are left to the care of the attorney-general), but which, on account of their magnitude or pernicious example, deserve the most public animadversion. And when an information is filed, either thus, or by the attorney-general ex-officio, it must be tried by a petit jury of the county where the offence arises: after which, if the defendant be found guilty, he must resort to the court for his punishment. See a history and vindication of this mode of prosecution in *Blackstone's Commentary*, vol. IV.

An INFORMER, informator, in law, is a person who informs against, or prosecutes, in any of the king's courts, those that offend against any law or penal statute. See INFORMATION. Informers were very numerous both in Greece and Rome. Wicked princes rewarded and countenanced this mischievous tribe; but Titus set on foot a most diligent search after them, and punished such as he found with death or banishment. Trajan also is praised by Pliny for a similar conduct. See SPY.

INFOR'MIDABLE, *adj.* Lat: *in* and *formidabilis*. Not to be feared; not to be dreaded.

INFOR'TUNATE, *adj.* Fr. *infortuné*: Lat. *infotunatus*. Unhappy. See UNFORTUNATE, which is commonly used.

INFRACT', *v. a.* Latin, *infrauctus*, *infraction*, *n. s.* } Latin, *fringere*, *fringo*. To break: the act of breaking; a breach or violation of INFRA'GIBLE, *adj.* INFRA'NGE', *v. a.* INFRA'NGEMENT, *n. s.* treaty. Infrangible, not to be broken. Infringe to violate; to destroy; to hinder; to break laws or contracts. Infringement, a breach. Infringer, one who breaks engagements.

INFRE'QUENT, *adj.* Latin, *infrequentia*. INFRE'QUENCY, *n. s.* } Uncommon: rarity.

INFRIG'I DATE, *v. a.* Lat. *in* and *frigidus*. To chill; to make cold.

INFURIATE, *adj.* Lat. *in* and *furia*. Enraged; raging.

INFUSCATION, *n. s.* Lat. *infuscatus*. The act of darkening or blackening.

INFUSE', *v. a.* Fr. *infuser*; Lat. *infusus*.

INFU'SIBLE, *adj.* To pour in; to instil; to INFU'SION, *n. s.* pour into the mind; to in-

INFU'SIVE, *adj.* spire; to steep in any hot fluid without boiling; to saturate with an infusion: infusible, that can be infused; that is insoluble; not fusible; that cannot be melted: infusion, the act of pouring; instilling a suggestion or whisper; the act of infusing. Infusive, an old word, having the power of infusion.

IN'GATE, *n. s.* In and gate. Entrance; passage in. An old word.

INGATH'ERING, *n. s.* In and gathering. The act of getting in the harvest.

INGEM'INATE, *v. a.* Lat. *igemino*. To INGEMINA'TION, *n. s.* double or repeat.

Repetition or reduplication.

INGEN'DERER, *n. s.* From ingender. He that generates. See ENCENDER.

INGEN'EABLE, *adj.* Lat. *ingeneratus*.

INGEN'ERATE, *adj.* Not to be produced

INGEN'ERATED, *adj.* or brought into being; inborn; innate; inbred; unbegotten.

INGENHOUZ (John), M.D., a celebrated Dutch natural philosopher, was born at Breda

in 1730, and brought up to the study of medicine in his native city. In 1767 he made a voyage to this country, to learn the Suttonian method of inoculation, and became acquainted with Sir John Pringle, president of the Royal Society, through whose recommendation he was employed in 1768 to inoculate the imperial family of Austria. His services on this occasion were rewarded with a pension of 600 florins. He afterwards engaged in medical practice near London, and in various chemical and philosophical researches, accounts of which he inserted in the Philosophical Transactions, and other works of science. He was the author of Experiments on Vegetables, 8vo.; New Experiments and Observations on different Subjects relating to Natural Philosophy, 2 vols. 8vo.; and an Essay on the Food of Plants. Dr. Ingenhouz died September 7th, 1799, at Bowood in Wiltshire, the seat of the marquis of Lansdowne.

INGE'NIOUS, *adj.* Fr. *ingenieur*; Sp. INGE'NIOUSLY, *adv.* *ingenioso*; Latin, *ingenium*, *ingenuus*, *ingenitus*. INGENU'ITY, *n. s.* INGENU'ITE, *adj.* INGEN'OUS, *adj.* INGEN'OUSLY, *adv.* INGEN'OUSNESS, *n. s.* INGENY, *n. s.* INGEST', *v. a.* Lat. *ingestus*. To throw INGEST'ION, *n. s.* into the stomach.

INGLIS (Sir James), a Scottish poet, who flourished in the sixteenth century. He was educated at St. Andrew's, went to Paris, and returned in the minority of James V, into whose favor he ingratiated himself by his poetry, having written sundry tragedies, comedies, and other poems, that were much applauded. He joined the French faction against the English; and in some skirmishes preceding the fatal battle of Pinkie, so distinguished himself, that he was knighted on the field. After that battle he retired into Fife, and amused himself with his favorite studies; and in 1548 published at St. Andrew's his Complaint of Scotland. He appears from this poem to have read more of Greek and Latin authors than was usual at that period, and to have been well skilled in mathematics and philosophy. He died at Culross in 1554.

INGLIS ISLAND, an island on the north coast of New Holland, near the western entrance into the gulf of Carpentaria. It is twelve miles long, and from one to three miles in breadth, and of considerable elevation, the size and foliage of its trees indicate fertility.

INGLO'RIOUS, *adj.* Lat. *in* and *gloria*.

INGLO'RIOUSLY, *adv.* Void of honor; mean; with ignominy; without glory.

INGOLSTADT, a town and fortress of the Bavarian states on the Danube. It has monuments of count Tilly, the Bavarian general in the war against Gustavus Adolphus; and Eckius, the opponent of Luther. A university was founded .

here in 1472, and continued till 1800, when it was transferred to Landshut. The town has several privileges, but little trade; its only manufacture of consequence is woollens. Thirty-five miles south-west of Ratisbon, and forty-three north of Munich.

IN'GOT, *n.s.* Fr. *lingot*, from the Span. *in-gotte*, prefixing the article, or from Dut. *inge-goten*, melted. A mass of metal.

INGRAFF', *v.a.* Fr. *greffer*; Greek

INGRAFT'MENT, *n.s.* γραψω. To propagate trees by inhesion; to plant the sprig of one tree in the stock of another; as, he ingrafted an apple upon a crab: to plant or introduce any thing not native; to fix deep; to settle: ingraftment, the act, or the thing ingrafted.

INGRAILED, in heraldry. See HERALDRY.

INGRATE', *adj.* Fr. *ingrat*; Lat. *in-*

INGRAT'EFUL, *adj.* gratus. Ingrate is pro-

INGRAT'IATE, *v.a.* per, but ingrateful less

INGRAT'ITUDE, *n.s.* proper than ungrateful; ungrateful; unthankful; displeasing to the sense: ingratiate, to put in favor; to recommend to kindness. It has with before the person whose favour is sought: ingratitude, retribution of evil for good: unthankfully.

INGREDI'ENT, *n.s.* Fr. *ingredient*; Lat. *ingrediens*. Component part of a body consisting of different materials. It is commonly used of the simples of a medicine.

INGRESS, *n.s.* Lat. *ingressus*. Entrance;

INGRES'sION, *adj.* power of entrance; ingress, the act of entering.

INGUINAL, *adj.* Fr. *inguinal*; Lat. *inguen*. Belonging to the groin.

INGULF', *v.a.* Fr. *engolfer*. To swallow up in an abyss; to cast into a gulf.

INGULPHUS, abbot of Croyland, and author of the history of that abbey, was born in London, about A.D. 1030. He was educated at Westminster; and when he visited his father, who belonged to the court of Edward the Confessor, his learning engaged the attention of queen Edgitha. From Westminster he went to Oxford, where he studied rhetoric, and the Aristotelian philosophy, in which he made greater proficiency than any of his contemporaries. When he was about the age of twenty-one he was introduced to William duke of Normandy, who visited the court of England in 1051, appointed him his secretary, and carried him with him into his own dominions. He soon became his chief favorite, and the dispenser of all preferments. This excited the envy and hatred of the courtiers; to avoid the effects of which, he obtained leave to go in pilgrimage to the Holy Land. With a company of fifty horsemen he joined Sigrifid duke of Mentz, who, with many German nobles, clergy, &c., was preparing for a pilgrimage to Jerusalem. When all united, they formed a company of 7000 pilgrims. In their way they spent some time at Constantinople, performing their devotions in the several churches. In their passage through Lycaia they were attacked by a tribe of Arabs, who killed, wounded, and plundered many of them of a prodigious mass of money. Those who escaped, after visiting Jerusalem, embarked on board a Genoese fleet and returned to Rome;

where, after the usual devotions, they separated, and returned each to his own country. Ingulphus now became a monk in the abbey of Fontenelle, in Normandy; in which, after some years, he was advanced to the office of prior. When William was preparing for his expedition into England, in 1066, he was sent by his abbot with 100 merks of money, and twelve young men, nobly mounted, and completely armed, as a present from that abbey. He was very graciously received by the king, who made him governor of the rich abbey of Croyland in Lincolnshire, in 1076; in which he spent the last thirty-four years of his life, governing that society with great prudence, and protecting their possessions from the rapacity of the neighbouring barons by the royal favor. The lovers of English history and antiquities are much indebted to this learned abbot, for his excellent history of the abbey of Croyland, from its foundation, A.D. 664, to 1091, into which he has introduced much of the general history of the kingdom, nowhere else to be found. Ingulphus died of the gout, at his abbey, in 1109, aged seventy-nine.

INGURGITATE, *v.a.* Lat. *ingurgito*.

INGURGITATION, *n.s.* To swallow down: the act of swallowing.

INGUSTABLE, *adj.* Lat. *in* and *gusto*. Not perceptible by the taste.

INHABILE, *adj.* Fr. *inhabile*: Lat. *inhabitare*. Unskillful; unready; unfit; unqualified.

INHABIT, *v.a. & v.n.* Lat. *in* and *habito*.

INHABITABLE, *adj.* To occupy; to live

INHABITANCE, *n.s.* or dwell in: inhabit

INHABITANT, *n.s.* able, incapable of af-

INHABITATION, *n.s.* fording habitation;

INHABITER, *n.s.* incapable of inhabi-
tants; uninhabitable: inhabitance, inhabita-
tion, place of dwelling; the act of inhabiting;
quantity of inhabitants: inhabiter, a dweller.

INHALE', *v.a.* Lat. *inhalo*. To draw in
with air; to inspire: opposed to exhale or expire.

INHARMONIOUS, *adj.* In and harmonious. Ummusical; not sweet of sound.

INHERE', *v.n.* Lat. *inharo*. To exist

INHE'REN'T, *adj.* in something else so as

to be inseparable from

INHER'IT, *v.a.* it: inborn, innate: in-

INHERITABLE, *adj.* herit, to receive, pos-

INHERITANCE, *n.s.* sess, or hold, by inheri-

INHER'ITOR, *n.s.* tance: which is patri-

INHER'ITRIX, *n.s.* mony; hereditary pos-

INHER'ITRESS, *n.s.* session; the reception

of possession: inheritor, an heir; one who

receives by succession: inheritrix, inheritress, a

woman that inherits; an heiress: inhesion, a

state of existing in something else.

INHERITANCE, in English law, is an estate in lands or tenements, descending to a man and his heirs; and the word inheritance is not only intended where a man has lands or tenements by descent of heritage; but also every fee-simple or fee-tail, which a person has by purchase, may be said to be an inheritance, because his heirs may inherit it. Lit. sect. 9. One may also have inheritance by creation; as in case of the king's grant of peerage, by letters patent, &c. See FEE SIMPLE.

Inheritances are also *corporeal* or *incorporeal*. Corporeal inheritances relate to houses, lands, &c., which may be touched or handled; and incorporeal inheritances are rights issuing out of, annexed to, or exercised with, corporeal inheritances; as advowsons, tithes, annuities, offices, commons, franchises, privileges, services, &c. 1 Inst. 9. 49.

There is also *several inheritance*, which is, where two or more hold lands severally; if two men have lands given to them and the heirs of their two bodies, these have a joint estate during their lives; but their heirs have several inheritances. Without blood, none can inherit; therefore he who hath the whole and entire blood shall have an inheritance before him who hath but part of the blood of his ancestor. 3 Rep. 41. The law of inheritance prefers the first child before all others; the male before the female; and of males the first born, &c. And as to inheritances, if a man purchases lands in fee, and dies without issue, those of the blood of the father's side shall inherit, if there be any; and, for want of such, the lands shall go to the heirs of the mother's side: but, if it come to the son by descent from the father, the heirs of the mother shall not inherit it. Plowd. 132. Lit. 4. 12. Goods and chattels cannot be turned into an inheritance. 3 Inst. 19. 126.

INHIERSE, *v. a.* In and herse. To inclose in a funeral monument.

INHIBIT, *v. a.* Fr. *inhiber*; Lat. *inhibeo*. **INHIBITION**, *n. s.* To restrain, hinder, impede, or check: a prohibition or embargo.

INHOLDI, *v. a.* In and hold. To have inherent; to contain in itself.

INHOSPITABLE, *adj.* Fr. *inhospitalité*; **INHOSPITABLY**, *adv.* in and *hospe*s. Af-
INHOSPITABLENESS, *n. s.* Forgoing no kindness. **INHOSPITALITY**, *n. s.* To strangers; unfriendly; uncourteous: want of hospitality.

INHU'MAN, *adj.* Fr. *inhumain*; Lat. *in-*
INHUMANITY, *n. s.* *humanus*. Barbarous;
INHU'MANLY, *adv.* Savage; cruel. Inhumanity, barbarity; savageness; want of humanity.

INHU'MATE, *v. a.* Fr. *inhumer*; Lat. *hu-*
INHUME, *v. a.* mo. To bury; to inter.

INJECT, *v. a.* Lat. *injicio*. To throw in;

INJECTION, *n. s.* To dart in. Injection, the act of casting in: any medicine made to be injected by a syringe, or any other instrument, into any part of the body; the act of filling the vessels with wax, or any other proper matter, to show their shapes and ramifications, often done by anatomists.

INJECT'ION, in surgery, the throwing in some liquor or medicine into a vein opened by incision. See ANATOMY and SURGERY.

INIMITABILITY, *n. s.* Lat. *in* and *imi-*
INIMITABLE, *adj.* *tabilis*. Not to be imitated; not to be copied; implying a degree of excellence above imitation, whether in manner, subject, or execution.

INJOIN', *v. a.* Fr. *enjoindre*; Lat. *injungo*. To command; to enforce by authority. See ENJOIN.

INIQUITOUS, *adj.* Fr. *inique*; Lat. *ini-*
INIQUITY, *n. s.* *quitas, in aquas*. In-

justice; wickedness; crime; unrighteousness.

INITIAL, *adj.* Fr. *initial*, *ini-*
INITIATE, *v. a., v. n.* & *adj.* *itier*; Lat. *ini-*
INITIATION, *n. s.* *tiuum*. Placed at the beginning; incipient; not complete. Initiate, to enter; to instruct in the rudiments; to place in a new state; to perform the first rite. Initiation, the reception of a new comer into any art or state.

INJUCUN'DITY, *n. s.* In and jucundity. Unpleasantness.

INJUDICABLE, *adj.* Lat. *in* and *judi-*
INJUDICIAL, *adj.* *cabilis*. Not cognizable by a judge:
INJUDICIOUS, *adj.* *zable* by a judge: *injudicial*, not according to form of law: injudicious, *vo* of judgment: injudiciously, unwisely.

INJUNCTION, *n. s.* Lat. *injunctus, injunc-*
tio. From *injoin*. Command; order; precept.

INJUNCTION, in law, a writ generally grounded upon an interlocutory order or decree out of the court of chancery or exchequer, sometimes to give possession to the plaintiff, for want of the defendant's appearance; sometimes to the king's ordinary court, and sometimes to the court christiana, to stop proceedings in a cause, upon suggestion made that the rigor of the law, if it take place, is against equity and conscience in that case, that the complainant is not able to make his defence in these courts, for want of witnesses, &c., or that they act erroneously, denying him some just advantage. The writ of injunction is directed, not only to the party himself, but to his counsellors, attorneys, and solicitors; and if any attorney, after having been served with an injunction, proceeds contrary to it, the court of chancery will commit him to the Fleet for contempt. But if an injunction be granted by the court of chancery in a criminal matter, the court of king's bench may break it, and protect any that proceed in contempt of it. See CHANCERY.

IN'JURE, *v. a.* Fr. *injurier*; Lat. *in-*
IN'JURER, *n. s.* *privative, and jus-*
INJ'URIOS, *adj.* To hurt unjustly; to wrong; to annoy, or inconvenience. In-
INJ'RIOSITY, *n. s.* *jurer, one who wrongs*
INJUSTICE, *n. s.* another. Injurious, unjust; mischievous; detracting; wrongful; hurtful. Injury, any iniquity, wrong, mischief, or detriment; annoyance in word or deed.

INK, *n. s. & v. a.* Fr. *encre*; Ital. *inchiosstro*;

INK'HORN, *n. s.* Gr. *sykew*. The black liquor

INK'MAKER, *n. s.* with which we write. Ink

INK'Y, *adj.* is used for any liquor with

INK'STAND, *n. s.* which persons write: as, red ink; green ink. Ink, to daub with ink: ink-horn, a portable case for the instruments of writing, made of horn: inky, consisting of, resembling, or black as, ink: ink-stand, the case which holds or contains the ink.

INK is a name given to every pigment used for writing or printing. There are two kinds of common black ink, viz. writing ink and printers' ink; besides the red and other colored inks, Indian ink, and the sympathetic inks.

Prior to the invention of printing, when the entire literature of the world was deposited in

MSS., the manufacture of a black and durable ink must evidently have been of the first importance. Accordingly we find that the most ancient MSS. are the most beautiful for color even at the present day. We have in fact no ink equal to that of the ancients, as may be readily seen by comparing the rolls and records that have been written from the fifteenth century to the end of the seventeenth, with the writings we have remaining of various ages from the fifth to the twelfth centuries. Notwithstanding the superior antiquity of the latter, they are in excellent preservation; but we frequently find the former, though of more modern date, so much defaced that they are scarcely legible. The ancient inks appear to have been solutions of gum and lamp-black, whereas the modern inks are almost always made of copperas and galls; which produces nothing like so fine a color, though it obviates an objection to which lamp-black inks are liable, viz. that they are easily discharged without destroying the paper. Besides their black inks, however, the ancients used various other colors, as red, gold, and silver, purple, &c. Green ink was frequently used in Latin MSS., especially in the latter ages; and it was frequently employed in signatures by the guardians of the Greek emperors, till their wards were of age. Blue or yellow ink was seldom used except in MSS.; 'but,' says Mr. Astle, 'the yellow has not been much in use, as far as we can learn, these 690 years.' Some kinds of characters, particularly the metallic, were burnished. Wax was used by the Latins and Greeks as a varnish, but especially by the former, and particularly in the ninth century.

A very excellent modern receipt for ink is the following:—Take one pound and a half of bruised Aleppo galls, and put them in six quarts of rain water; add eight ounces of green copperas, eight ounces of gum-Arabic, and three ounces of roch alum; mix them well together and shake them frequently, and in a fortnight the ink will be fit for use. It is, indeed, rather pale at first, but soon appears of a fine and durable black. The following method is recommended by Dr. Black in his lectures:—'Take powdered galls three ounces; logwood shavings and vitriolated iron, of each one ounce; water from two to three pints, according to the degree of strength required for the ink. Before the boiling is finished throw in half an ounce of gum-Arabic, and when it is dissolved, strain the liquor.' As a means of preserving the ink from mould Dr. Black directs about a quarter of an ounce of spirit of wine to be added, and likewise a little powdered cloves ground in a mortar with a little of the ink.

As the durability of records and other valuable writings depends much upon the goodness of the ink employed, some of the first chemists have thought the manufacture well worth their utmost attention. Of these Dr. Lewis and M. Ribaucourt are the most celebrated. Dr. Lewis recommends that a decoction of logwood should be used instead of water, as it greatly improves both the beauty and deepness of the black, without disposing it to fade. He adds that the addition of gum-Arabic is not only useful, by

keeping the coloring matter suspended in the fluid, but also by preventing the ink from spreading, by which means a greater quantity of it is collected on each stroke of the pen. Sugar, which is sometimes added to ink, is found to be much less effectual than gums, and to have the inconvenience of preventing the drying of the ink. The color of ink is greatly injured by keeping the ink in vessels made of copper or lead, and probably of any other metal, excepting iron. Dr. Lewis, therefore, recommends the following as the best proportions of the ingredients for ink. One part of green vitriol, one part of powdered logwood, and three parts of powdered galls. The best menstruum appears to be vinegar or white wine, though for common use water is sufficient. If the ink be required to be of a full color, a quart, or at most three pints, of liquor may be allowed to three ounces of galls, and to one ounce of each of the other two ingredients. Half an ounce of gum may be added to each pint of the liquor. The ingredients may be all put together at once in a convenient vessel, and well shaken four or five times each day. In ten or twelve days the ink will be fit for use, though it will improve by remaining longer on the ingredients. Or it may be made more expeditiously, by adding the gum and vitriol to a decoction of galls and logwood in the menstruum. In some attempts made by the doctor to endow writing ink with the great durability of that of the ancients, as well as the properties which it has at present, he first mixed both lamp-black and ivory-black with solution of gum-Arabic, made of such consistence as just to flow sufficiently from the pen. The liquors wrote of a fine black color; but, when dry, part of the color could be rubbed off, especially in moist weather, and a pencil dipped in water washed it away entirely. I tried, says he, solutions of the animal glues with the same effect. Though the oily mixtures answered better than those with simple gums or glues, it was apprehended that their being dischargeable by water would render them unfit for the purposes intended. The only way of obviating this imperfection appeared to be, by using a paper which should admit the black liquid to sink a little into its substance. Accordingly I took some of the more sinking kinds of paper, and common paper made damp as for printing; and had the satisfaction to find, that neither the oily nor the simple gummy mixture spread upon them so much as might have been expected, and that the characters were as fixed as could be desired, for they could not be washed out without rubbing off part of the substance of the paper itself. But a further improvement may yet be made, namely, that of uniting the ancient and modern inks together; or using the common vitriolic ink instead of water, for tempering the ancient mixture of gum and lamp-black. By this method it should seem that the writings would have all the durability of those of former times, with all the advantage that results from the vitriolic ink fixing itself in the paper.

A durable ink may also, he says, be made by washing paper, parchment, &c., with the Prussian acid, which will not in the least injure either of these substances. The materials thus prepared,

may be written on with common ink, and a ground of Prussian blue will be formed beneath every stroke, which will remain long after the black has decayed by the influence of the air, or been destroyed by acids.

M. Ribaucourt gives these directions for the composition of good ink:—

Take eight ounces of powdered Aleppo galls; four ounces of chip logwood; four ounces of sulphate of iron; three ounces of powdered gum-arabic; one ounce of sulphate of copper; and one ounce of sugar-candy. Boil the galls and logwood together in twelve pounds of water for one hour, or till half the liquid has evaporated. Strain the decoction through a hair sieve, or linen cloth, and then add the other ingredients. Stir the mixture till the whole is dissolved, more especially the gum; after which, leave it to subside for twenty-four hours. Then decant the ink, and preserve it in bottles of glass or stone ware, well corked.

Van Mons applied the discoveries of Proust to the preparation of common writing ink. He found that the sulphate of iron, calcined to whiteness, always gives a most beautiful black precipitate. By the following mixture he obtained excellent ink: galls four ounces; sulphate of iron, calcined to whiteness, two ounces and a half; and two pints of water. The whole must be left to macerate cold for twenty-four hours; then add gum-arabic ten drachms, and preserve it in a stone jar open, or covered merely with paper. Chaptal also employed the calcined sulphate, in connexion with the decoction of gall-nuts, and logwood.

Mr. Desormeaux, jun., an ink manufacturer in Spitalfields, has given the following in the Philosophical Magazine:—Boil four ounces of logwood about an hour in six beer quarts of water, adding boiling water from time to time; strain while hot; and, when cold, add water enough to make the liquor five quarts. Into this put one pound avoirdupois of blue galls coarsely bruised; four ounces of sulphate of iron calcined to whiteness; three ounces of coarse brown sugar; six ounces of gum-arabic; and a quarter of an ounce of acetate of copper, triturated with a little of the decoction to a paste, and then thoroughly mixed with the rest. This is to be kept in a bottle uncorked about a fortnight, shaking it twice a-day, after which it may be poured from the dregs, and corked up for use.

On many occasions it is of importance to employ an ink indestructible by any process that will not equally destroy the material on which it is applied. Mr. Close has recommended for this purpose twenty-five grains of copal in powder dissolved in 200 grains of oil of lavender, by the assistance of gentle heat, and then mixed with two grains and a half of lamp-black, and half a grain of indigo; or 120 grains of oil of lavender, seventeen grains of copal, and sixty grains of vermillion. A little oil of lavender, or of turpentine, may be added, if the ink be found too thick. Mr. Sheldrake suggests, that a mixture of genuine asphaltum dissolved in oil of turpentine, amber varnish, and lamp-black, would be superior.

Mr. Haussman has given some *composition inks*

for marking pieces of cotton or linen, previous to their being bleached, which are capable of resisting every operation in the processes both of bleaching and dyeing, and, consequently, might be employed in marking linen for domestic purposes. One of these consists of asphaltum dissolved in about four parts of oil of turpentine, and mixed with lamp-black, so as to make an ink of a proper consistence for printing with types. Another is the blackish sulphate left after expelling oxygen gas from oxide of manganese with a moderate heat, being dissolved and filtered, the dark grey pasty oxide left on the filter is to be mixed with a very little solution of gum-tragacanth, and the cloth marked with this is to be dipped in a solution of potash or soda, mild or caustic, in about ten parts of water. Nitrate of silver for a surface impregnated with carbonate of soda, and muriate of gold for one impregnated with protomuriate of tin, form good indelible inks.

The following is the receipt for the *chemical indelible ink*, sold for the purpose of marking linen:—The linen, that the black color may be produced and fixed, is first moistened with a solution of four drachms of soda in one ounce of soft water, with one grain of saffron, and fifteen grains of gum-arabic. The constituents of the ink are, one scruple of lunar caustic, one drachm and a half of distilled water, or, if common soft water be used, two drops of nitrous acid should be added to the solution. The mordant with which the linen has been moistened, being suffered perfectly to dry by a gentle heat, the part where the linen has been moistened is written upon with a clean pen dipped in the ink.

Good *printers' ink* is a black paint, smooth and uniform in its composition, of a firm black color, and possessing a singular aptitude to adhere to paper impregnated with moisture.

The consistence and tenacity of the oil in this composition are greatly increased, and its greasiness diminished by means of fire. Linseed oil or nut oil is made choice of for this use. It is said that the other expressed oils cannot be sufficiently freed from this unctuous quality.

Ten or twelve gallons of the oil are set over the fire in an iron pot, capable of holding at least half as much more; for the oil swells up greatly, and its boiling over into the fire would be very dangerous. When it boils it is kept stirring with an iron ladle; and, if it do not itself take fire, it is kindled with a piece of flaming paper or wood; for simple boiling, without the actual ascension of the oil, does not communicate a sufficient degree of the drying quality required. The oil is suffered to burn for half an hour or more, and the flame being then extinguished, by covering the vessel close, the boiling is afterwards continued with a gentle heat, till the oil appears of a proper consistence, in which state it is called varnish. Several other additions are made to the oil during the boiling; such as crusts of bread, onions, and sometimes turpentine. These are kept secret by the preparers. The intention of them is more effectually to destroy part of the unctuous quality of oil, to give it more body to enable it to adhere better to the wetted paper, and to spread on types neatly and uniformly. 157

Lamp-black is the common material to give the black color, of which two ounces and a half are sufficient for sixteen ounces of the varnish. Vermilion is a good red. They are ground together on a stone with a muller, in the same manner as oil paints.

The ink used by copper-plate printers differs in the oil, which is not so much boiled. This would render it less disposed to enter the cavities of the engraving, and more difficult either to be spread or wiped off. The black is likewise of a different kind. Instead of lamp-black, the Frankfort black is used, which is a residual or denser charcoal, said to be made from vine twigs. This is softer and less gritty than the ivory or other blacks prepared among us, and it is said, that lamp-black gives always a degree of toughness to the ink, which the Frankfort black does not; but the goodness of the color seems to be the leading inducement for the use of the latter. A pale or brown black can be much more easily endured in a book, than in the impression of an engraving.

A strong decoction of Brasil wood, with as much alum as it can dissolve, and a little gum, forms a good red ink. These processes consist in forming a lake, and retarding its precipitation by the gum.

Red ink may be also made of vermillion, by beating together the glaire of four eggs, a teaspoonful of white sugar, or sugar candy, powdered, and as much spirit of wine, till they be of the consistence of oil; and then adding such a proportion of vermillion as will produce a red color of sufficient strength; the mixture should be kept in a small phial, or well-stopped ink bottle, and well shaken before it be used. Gum-water is often used instead of the glaire of eggs; but thin size made of isinglass, with a little honey, is much better for the purpose. A more durable red ink may be made by tempering the solution of copal with red sulphuret of mercury: e. g. take 120 grains of oil of lavender, seventeen grains of powdered copal, and sixty grains of red sulphuret of mercury, dissolve the copal in the oil, and then mix the sulphuret with the solution upon a smooth surface.

Blue ink may be made by diffusing Prussian blue or indigo through strong gum-water. *Yellow* ink may be made by a solution of gamboge in gum-water. Most of the common water-colored cakes, diffused in water, will make sufficiently good-colored inks for most purposes. Inks of other colors may be made from a strong decoction of the ingredients used in dyeing, mixed with a little alum and gum-water.

The *Indian* ink is used in China for writing with a brush, and for painting upon the soft flexible paper of Chinese manufacture. It is ascertained, as well from experiment as from information, that the cakes of this ink are made of lamp-black and size, or animal glue, with the addition of perfumes or other substances not essential to its quality as an ink. The fine soot from the flame of a lamp or candle, received by holding a plate over it, mixed with clean size from shreds of parchment or glove leather not dyed, will make an ink equal to that imported.

Sympathetic inks are those with which a per-

son may write, and yet nothing appear on the paper after it is dry, till some other means are used, such as holding the paper to the fire, rubbing it over with some other liquor, &c. These kinds of ink may be divided into seven classes, according to the means used to make them visible: viz. 1. Such as become visible by passing another liquor over them, or by exposing them to the vapor of that liquor. 2. Those that do not appear so long as they are kept close, but soon become visible on being exposed to the air. 3. Those which become visible by being exposed to the fire. 4. Such as become visible by heat, but disappear again by cold or the moisture of the air. 5. Those which become visible by being wetted with water. 6. Such as appear of various colors, red, yellow, blue, &c. I. The first class contains four kinds of ink, viz. solutions of lead, bismuth, gold, and green vitriol. The first two become visible in the same manner, viz. by the contact of sulphureous liquids or fumes. For the first a solution of common sugar of lead in water will answer as well as more troublesome preparations. On writing with this solution with a clean pen, the writing when dry will be totally invisible; but if it be wetted with a solution of hepar sulphuris, or of ointment, dissolved by quick-lime; or if it be exposed to the strong vapors of these solutions, but especially to the vapor of volatile tincture of sulphur; the writing will appear of a brown color, more or less deep according to the strength of the sulphureous fume. By the same means what is written with the solution of bismuth in spirit of nitre will appear of a deep black. The sympathetic ink prepared from gold depends on the property by which that metal precipitates from its solvent on the addition of a solution of tin. Write with a solution of gold in aqua regia, and let the paper dry gently in the shade, nothing will appear for the first seven or eight hours. Dip a pencil or a small fine sponge in the solution of tin, and, drawing it lightly over the invisible characters, they will immediately appear of a purple color. Characters written with a solution of green vitriol, carefully depurated, will likewise be invisible when the paper is dry; but, if wetted with an infusion of galls, they will immediately appear as if written with common ink; if, instead of this infusion, a solution of the phlogisticated alkali, impregnated with the coloring matter of Prussian blue, the writing will appear of a very deep blue. To the second class belong the solutions of all those metals which were supposed to attract phlogiston from the air, such as lead, bismuth, silver, &c. The sympathetic ink of gold already mentioned belongs also to this class; for, if the characters written with it are long exposed to the air, they become by degrees of a deep violet color, nearly approaching to black. In like manner a solution of silver in aqua fortis is invisible when newly dried, but when exposed to the sun appears of a grey color like slate. To this class also belong solutions of lead in vinegar; copper in aqua fortis; tin in aqua regia; emery, and some kinds of pyrites, in spirit of salt; mercury in aqua fortis; or iron in vinegar. Each of these has a particular color when exposed to the air; but they have the dis-

agreeable property of corroding the paper, so that after some time the characters appear like holes cut out of the paper. The third class, comprehending all those that become visible by being exposed to the fire, is very extensive, as it contains all those colorless liquors in which the matter dissolved is capable of being reduced, or of reducing the paper, into a sort of charcoal by a small heat. A very easily procured ink of this kind is oil of vitriol diluted with as much water as will prevent it from corroding the paper. Letters written with this fluid are perfectly invisible when dry, but instantly appear as black as if written with the finest ink on being held near the fire. Juice of lemons or onions, a solution of sal ammoniac, green vitriol, &c., will answer the same purpose, though not so easily, or with so little heat. The fourth class comprehends only solutions of regulus of cobalt in spirit of salt. The fifth class comprehends such inks as become visible when characters written with them are wetted with water. They are made of all such substances as deposit a copious sediment when mixed with water, dissolving only imperfectly in that fluid. Of this kind are dried alum, sugar of lead, vitriol, &c. Characters may be made to appear of a fine crimson, purple, or yellow, by writing on paper with solution of tin in aqua regia, and then passing over it a pencil dipt in a decoction of cochineal, Brasil-wood, logwood, yellow wood, &c. If a weak infusion of galls be used, the writing will be invisible till the paper be moistened with a weak solution of sulphate of iron. It then becomes black, because these ingredients form ink. If paper be soaked in a weak infusion of galls, and dried, a pen dipped in the solution of sulphate

of iron will write black on that paper, but colorless on any other paper. Diluted prussiate of potash affords blue letters when wetted with the solution of sulphate of iron. The solution of cobalt in aqua regia, when diluted, affords an ink which becomes green when held to the fire, but disappears again when suffered to cool. This has been used in fanciful drawings of trees, the green leaves of which appear when warm, and vanish again by cold. If the heat be continued too long after the letters appear, it renders them permanent. If oxide of cobalt be dissolved in acetic acid, and a little nitre added, the solution will exhibit a pale rose color when heated, which disappears on cooling. A solution of equal parts of sulphate of copper and muriate of ammonia, gives a yellow color when heated, that disappears when cold.

When writing with common ink has been effaced by means of aqueous chlorine, the vapor of sulphuret of ammonia, or immersion in water impregnated with this sulphuret, will render it again legible. Or, if the paper that contained the writing be put into a weak solution of prussiate of potash, and when it is thoroughly wet a little sulphuric acid be added to the liquor, so as to render it slightly acidulous, the same purpose will be answered.

INK'LE, n.s. A kind of narrow fillet; a tape.

INK'LING, n.s. This word is derived by Skinner from *inklincen*, to sound within. This sense is still retained in Scotland: as, I heard not an inkling. Hint; whisper; intimation.

IN'LAND, adj. & n.s. { Fr. *lande*; Italian

IN'LANDER, n.s. { *londa*; Belgic *landt*. Interior; lying remote from the sea; midland parts: one who dwells remote from the sea.

I N L A N D N A V I G A T I O N .

I N L A N D N A V I G A T I O N . The importance of this species of conveyance, as affording an easy and cheap means of transit for merchandise, and produce of every description, has long been admitted. Canals also promote the interests of agriculture in a very material degree; and, by facilitating the intercourse between the various and remote parts of a country, give an increased impetus to civilisation and the arts; and whilst thus dispensing benefits on every hand, to the various classes of the community, contribute, in the most essential manner, to national security. The importance of inland navigation seems to have been understood by the most flourishing nations of antiquity; as well as in modern times;—indeed canals were formed in various parts of the continent of Europe, long prior to their appearance in this country.

Herodotus relates that the Cuidians, a people of Caria in Asia Minor, designed to cut through the Isthmus which joins this peninsula to the continent; but were superstitious enough to give up the undertaking because they were interdicted by an oracle. Several kings of Egypt attempted to join the Red Sea to the Mediterranean. Cleopatra was exceedingly fond of this project. Solyman II., emperor of the Turks, employed 56,000 men in this great work. The canal was

completed under the caliphate of Omar, but was afterwards allowed to fall into disrepair; so that it is now difficult to discover any traces of it. Both the Greeks and Romans intended to make a canal across the Isthmus of Corinth, which joins the Morea and Achaia, in order to make a navigable passage by the Ionian Sea into the Archipelago. Demetrius, Julius Caesar, Caligula, and Nero, made several unsuccessful efforts to open this passage. But, as the ancients were entirely ignorant of the use of water-locks, their whole attention was employed in making level cuts, which is probably the principal reason why they so often failed in their attempts. Charlemagne formed a design of joining the Rhine and the Danube, in order to make a communication between the ocean and the Black Sea, by a canal from the river Alnautz, which discharges itself into the Danube, to the Reditz, which falls into the Maine; and this last falls into the Rhine near Mayence: for this purpose he employed a prodigious number of workmen; but he met with so many obstacles from different quarters, that he was obliged to give up the attempt.

Without, however, going further into the history of early canal navigation, we may in the first instance examine the best mode of cutting

a canal and passing barges from one level to another; as a reference to our treatise on HYDROSTATICS will show that the particles of which water is composed invariably tend to a state of equilibrium. The canal locks that we shall have occasion to describe combine advantages of a most important nature over the ordinary arrangements.

The particular operations necessary for making artificial canals depend upon a variety of circumstances. The situation of the ground, the vicinity or connexion with rivers, the ease or difficulty with which a proper quantity of water can be obtained; these, and many other circumstances, necessarily produce great variety in the structure of these hydraulic works, and augment or diminish the labor and expense of executing them. When the ground is naturally level, and unconnected with rivers, the execution is easy, and the navigation is not liable to be disturbed by floods; but when the ground rises and falls, and cannot be reduced to a level, artificial methods of raising and lowering vessels must be employed; which likewise vary according to circumstances.

Temporary sluices are sometimes employed for raising boats over falls or shoals in rivers by a very simple operation. Two posts or pillars of mason work, with grooves, are fixed, one on each bank of the river, at some distance below the shoal. The boat having passed these posts, planks are let down across the river by pulleys into the grooves, by which the water is dammed up to a proper height for allowing the boat to pass up the river over the shoal.

The Dutch and Flemings at this day sometimes (when obstructed by cascades) form an inclined plane or rolling bridge upon dry land, along which their vessels are drawn from the river below the cascade into the river above it. This, it is said, was the only method employed by the ancients, and is still used by the Chinese, who are said to be entirely ignorant of the nature and utility of locks. These rolling bridges consist of a number of cylindrical rollers which turn easily on pivots, and a mill is commonly built near by, so that the same machinery may serve the double purpose of working the mill and drawing up vessels.

A lock is a basin placed lengthways in a river or canal, lined with walls or masonry on each side, and terminated by two gates, placed where there is a natural fall; and so constructed that, the basin being filled with water by an upper sluice to the level of the water above, a vessel may ascend through the upper gate; or, the water in the lock being reduced to the level of the water at the bottom of the cascade, the vessel may descend through the lower gate; for, when the waters are brought to a level on either side, the gate on that side may be easily opened. But, as the lower gate is strained in proportion to the depth of water it supports, when the perpendicular height of the water exceeds twelve or thirteen feet, more locks than one become necessary. Thus, if the fall be twenty feet, two locks are required, each having eight feet and a half fall; and, if the fall be twenty-six feet, three locks are necessary, each having eight feet eight inches

fall. The side walls of a lock ought to be very strong. Where the natural foundation is very bad, they should be founded on piles and platforms of wood: they should likewise slope outwards, in order to resist the pressure of the earth from behind.

We may now describe the double canal lock designed by Mr. Gower of Ipswich for the Regent's Canal Company, by means of which twice the facility of transit is obtained with only half the expenditure of water.

A and B, plate INLAND NAVIGATION, fig. I, are locks having a communication by means of sluices W and x in the middle pier. Now admitting lock A shall be full, and lock B empty, at the same time that two barges shall arrive, the one going down and the other up the stream; the barge going down will naturally enter the lock A, which is ready for her reception; while the other will enter B. The sluices and gates being now shut, let the middle pier sluices be opened, so that the water may flow from the lock A into B, whereby the barge in A will be lowered, and the barge in B raised, till both are on a level; at which time the barge in A will be half up, and the barge in B half down. Now shut the pier sluices W and x, and open the side sluices y and z, whereby lock A will continue to empty, and B to fill, till the water in each obtain the level of the lower and upper canal: the gates C and D being then opened, each barge is at liberty to depart the one up and the other down the stream; the time employed to pass them being no more than the time employed in passing one barge through a single lock; and, to perform this double duty, only one full lock of water has been withdrawn from the upper level of the canal. Figs. 2 and 3 are vertical and transverse sections of the same lock.

We have now to examine a canal lock in which no waste of water occurs. The model is in the possession of Mr. Partington of the London Institution. It was originally suggested by Mr. Bogarts, and consists of a double lock-pit and tank capable of displacing, and as such of elevating the water and barge in which it floats. It is represented at fig. 4. A B C D are the upper and lower water-levels. The plunger is shown separately at fig. 5. If we now suppose the plunger in its proper situation, and the end E depressed, the water will be forced along the under-ground communication beneath, and the barge will be raised from the lower to the upper level at D. The principal novelty in this contrivance remains to be noticed. The plunger, fig. 5, is hollow, and filled with water, and as soon as it is turned a little out of its horizontal direction, the water, as is shown at H, enters the side of the vessel that is then immersed, and forms an exact balance for the quantity that has been displaced in the lock-pit.

If, on the contrary, the navigator wishes to depress a barge, or carry it from a high to a low level, he has only to open the gates and admit the vessel, which will sink the moment the plunger is raised.

Mr. Woodhouse has a patent for improvements in canals. They are divided by the patentee under four heads; the first consists in the

application of certain contrivances for weighing boats, &c., whether they are laden or empty. An horizontal frame of timber is to be erected over a lock, of a sufficient height above the surface of the canal to admit boats to pass under it, and of competent strength to support the weight of the boats with their cargoes. Upon this frame weighing machines of the best construction are to be placed, such as are capable of sustaining the said boats, &c. Let the weighing machines be so arranged that chains or bars, depending from the short ends of levers, may form two parallel rows, at such a distance asunder as to admit the vessels intended to be weighed to pass between them. Across the bottom of the lock as many pieces of timber or iron are placed as there are pairs of chains or bars depending from the levers of the weighing-machines. If these cross-pieces be timber, they must be loaded with metal, so as just to sink in water. To each end of these cross-pieces a strong chain must be fastened, and each of the chains depending from the machines must terminate in a strong hook, and be furnished with an adjusting screw or wedge, capable of lengthening or shortening the bars or chains.

When a vessel is to be weighed, it must swim into the lock, and the cross-pieces drawn up by their chains until they come into contact with the bottom of the vessel. The chains of the cross-pieces are then to be hooked to the depending bars, and to be made tight by adjusting screws or wedges. A sufficient quantity of water is then let out of the lock into a side pond (where it is preserved), to leave the vessel suspended on the machines. To ascertain the whole weight sustained, the main levers must be connected by means of a bar, and weights suspended from it will give the result.

Secondly. The next object of this patent is that of conveying vessels from one level to another without locks. For this purpose the upper and lower levers are to be brought to within such a distance of each other as shall be somewhat more than the length of the vessel to be conveyed. Each of the levers are to terminate in two canals, wide enough to admit the boat; and the space between the two levers must be divided lengthways into two spaces by a partition of timber, of a sufficient strength, and carried with the ends and side walls a sufficient height above the top level, to fix the machinery upon, turning a proper arch or arches in the end wall next the lower canal, for the vessel to swim underneath. Each of these spaces must be sufficiently large to admit a water-tight vessel called a conductor, capacious enough to swim the vessel in. Each of the conductors must be furnished with a stop-gate or paddle at each end; and the ends of the upper and lower canals must also have stop-gates. The two conductors must be suspended by a competent number of ropes or chains, one end of each to be made fast to strong pieces of iron or timber fastened to the sides of the conductors, and meeting over the centre, and the other ends fastened to two drums or wheels upon horizontal shafts. A counter-balance to the weight of the ropes is effected by their coiling on the drums, and, the height of the

lift being given, the diameter of the drum to produce the effect is easily found.

The ends of the canals must be truly made and covered with leather, which is to be stuffed between the leather and wood, to form an elastic body; so that when the ends of the conductors are forced against them, by a spring or any other contrivance, they may be water-tight. To pass a boat from the lower to the upper level, open the gate in the lower conductor, and the corresponding one in the lower canal, and swim the boat into the conductor, which will displace a quantity of water from it, equal in weight to the weight of the vessel and cargo; so that the conductor with its contents is always of the same weight. When the vessel is in the conductor, and the gates shut, the apparatus is to be set in motion by a pinion acting in a wheel fixed on the axis of the drum, or by any other mechanical contrivance; and the top conductor being, with the water in it, equal to the weight of the lower one, will descend, and the bottom conductor, with the vessel in it, will rise; when it arrives at the upper level the top conductor will have descended to the lower level. Hence one vessel may be lowered in one conductor, while another is rising in the other, since the equilibrium is not destroyed by the vessel entering the conductor. It may be expedient to give the descending conductor more weight than the ascending one, to produce motion in the apparatus with more ease, which may be effected by not suffering the descending conductor to be quite so low as to bring the surface of the water in it to the level of the water in the lower canal, so that when the gates are opened a small quantity of water will run out of the conductor into the lower canal. The strength of this apparatus, and number of ropes, will depend upon the weight of the vessel.

Thirdly. Another object of this patent is the application of a telegraph or signal to the purposes of canal navigation, which is intended to produce a very considerable saving of water in passing locks, when they are so far distant from each other that the lock-keepers cannot see the boats from one lock to another; for it takes no more water to pass a given number of boats up the locks, and as many down, provided they pass alternately, than it would to pass them in succession, in either direction, by the assistance of the telegraph. The telegraph or signal may be a straight piece of timber, with a board framed into the upper end of it about eighteen inches long, and one foot broad, having a round hole cut through it about eight inches in diameter, a frame being fixed in the ground to receive this piece of timber, when raised perpendicularly, and in which frame it will turn round therefore, when the first lock-keeper has a boat in view upon the canal, he turns the flat side of the board towards the next lock, which informs the next lock-keeper that there is a boat coming in that direction: the middle lock-keepers are furnished with two telegraphs or signals to give information each way.

Fourthly. The last thing mentioned in the specification, is a method of raising a sunken vessel; which is done by mooring two loaded

vessels alongside that which is sunk, with two or more pieces of timber, long enough to project over each side of the loaded boats, half the breadth of the boat, with a pulley or roller fixed at each end of the timbers, for one or more ropes or chains to pass over, one end to be fastened to the sunken boat, and the other to an empty boat on the outside of each of the loaded boats. When all the chains are made fast, by unloading the loaded boats into the empty ones, the sunken boat will thereby be raised.

Within the last fifty years a great number of canals have been cut in various parts of England, which have greatly contributed to the improvement of the country, and the facilitating of commercial intercourse between the trading towns. The first of these, in point of date, is the Sankey Canal, the act of parliament for which was obtained in 1755. It was cut to convey coals from the coal-pits at St. Helen's to the River Mersey, and so to Liverpool, and is in length twelve miles.

But the canals of the late duke of Bridgewater, the great father of inland navigation in this country, are of much greater importance, both for the extent and the natural difficulties that were surmounted by the fertile genius of that extraordinary mechanician, Mr. Brindley. Of these great works the first was begun in 1758, at Worsley Mills, about seven miles from Manchester, where a basin is cut, containing a great body of water, which serves as a reservoir to the navigation. The canal runs through a hill, by a subterranean passage large enough for the admission of long flat-bottomed boats, towed by hand-rails on each side, nearly three-quarters of a mile, to the duke's coal works. There the passage divides into two channels, one of which goes 500 yards to the right, and the other as many to the left. In some places the passage is cut through solid rock, in others arched over with brick. Air funnels, some of which are thirty-seven yards perpendicular, are cut out at certain distances through the rock to the top of the hill. At Bartonbridge, three miles from the basin, is an aqueduct, which, for upwards of 200 yards, conveys the canal across a valley, and the navigable river Irwell. There are three arches over this river, the centre one sixty-three feet wide, and thirty-eight feet high above the water, which will admit the largest barges to go through with masts and sails standing. The whole of the navigation is more than twenty-nine miles; it falls ninety-five feet, and was finished in five years.

The *Grand Trunk*, or *Staffordshire* Canal, was begun in 1776, under the directions of Mr. Brindley, in order to form a communication between the Mersey and the Trent, and, in consequence, between the Irish Sea and the German Ocean. It was completed in 1777, after the death of Mr. Brindley, who died in 1772, by his brother-in-law Mr. Henshall. Its length is twenty-two miles, it is twenty-nine feet broad at the top, twenty-six at the bottom, and five deep. It is carried over the river Dove by an aqueduct of twenty-three arches, and over the Trent by one of six. At the hill of Harecastle, in Staffordshire, it is conveyed through a tunnel more

than seventy yards below the surface of the ground, and 2880 yards in length. In the same neighbourhood there is another subterraneous passage of 350 yards, and at Preston-on-the-Hill another, 1241 yards in length. From the neighbourhood of Stafford a branch goes off from this canal, and joins the Severn near Bewdley: two other branches go, the one to Birmingham, and the other to Worcester. The Braunston, or Grand Junction Canal (so called from its uniting the inland navigation of the central counties), extends from the Thames at Brentford to the Oxford Canal, at Braunston, in Northamptonshire.

The first part of the course of the *Barnsley* Canal is south, and the remainder west, about fifteen miles in length, in the West Riding of Yorkshire; its western end is considerably elevated above the sea. The principal object of it seems to be the export of coals and paving-stones, and forming a short communication with Rotherham and Sheffield (by the Dearne and Dove Canal, with which it connects at Eyming Wood near Barnsley), and Leeds, Wakefield, Halifax, Manchester, Liverpool, &c. It commences in the lower part of the Calder River, or Ayr and Calder navigation, a little below Wakefield, makes a turn when it arrives at the Dearne River, and terminates at Barnby Bridge near Cawthron; there is a branch of two miles and a half to Haigh Bridge, and rail-way branches to Barnsley Town, and to Silkstone. From the Calder to the junction of the Dearne and Dove Canal, about nine miles, is a rise of 120 $\frac{1}{2}$ feet; this is effected by three locks together, near Agbridge, having a low level or side cut brought up to near the upper pound, with a steam engine for pumping up the water again, which is let down by the lockage; by thirteen other locks near Watton, and a long side-cut, from which engines pump up the water to supply the pound above these; and near Bargh Bridge, by four other locks, a side cut and engine. On the Haigh Bridge branch there are also seven locks together, with a low side-cut, and a steam engine for pumping up the water required for lockage. At Eym is an aqueduct bridge.

The *Basingstoke* Canal was first proposed in 1772, as an extension of, or appendage to, the canal intended for shortening the course of the navigation of the river Thames, between Reading and Maidenhead; but it was some years before the first act for this was obtained in 1778. The general direction of this canal is nearly west, by rather a crooked course of thirty-seven miles in length, in the counties of Surrey and Hants; the summit-pound thereof of twenty-two miles in length is upon a high level, near the south-east branch of the grand ridge on its north side. The principal objects thereof seem the import of coals, and export of timber and agricultural produce, from and to the Thames. It commences in the Wey River at Westley, about two miles from its junction with the Thames, and terminates at Basingstoke. The first fifteen miles from the Wey River it has a rise of 195 feet by twenty-nine locks to Dadbrook, (the part at each lock being about seven feet), from whence to Basingstoke it is level. At Grewell is a tunnel,

part of which intersects the chalk strata about three-quarters of a mile in length.

The *Glamorganshire* Canal has for its objects the export of the produce of the immense iron, coal, and lime works in the neighbourhood of the Merthyr Tydfil, &c., and the supply of the rapidly increasing population thereof; at Eglwysila the Aberdare Canal joins, and the Cardiff and Merthyr rail-way runs by its side, and joins it at those two places. Its northern end is considerably elevated. Cardiff and Caerphilly are considerable towns on or near the line; it commences in a sea-basin or dock, in the Severn, at the lower-layer near Cardiff, and terminates at Cyfartha, a little above Merthyr, where are the immense iron-works of Mr. Crawshay; it has a rail-way branch from Merthyr to Dowlais and Penydarren iron-works. From the tide-way at Lower-layer to Merthyr is a rise of nearly 600 feet, and, during a part of this distance, the canal skirts precipitous mountains at the height of nearly 300 feet above the river Taaf, which it closely accompanies through its whole length. The floating-dock at Lower-layer is sixteen feet deep, in which a great number of ships, of 300 tons burden, can lie constantly afloat, and load or unload, either at the spacious warehouses on its banks, or from, or to, the boats belonging to this canal, or the trams used on the Cardiff and Merthyr rail-road, that here commences. There is a large aqueduct bridge over the Taaf at Gelllgare. This company was authorised to raise £100,000, and to the powers for raising the last £10,000, this singular condition was annexed, viz. that the whole concern should be completed in two years, after which no further money should be applied, except for repairs. At Cyfartha there is a famous water-wheel, made of cast-iron, fifty feet in diameter; the water being conveyed thereto for a great distance in an iron aqueduct.

The general direction of the *Brecknock and Abergavenny* Canal is about north-west, thirty-three miles in length, in the counties of Monmouth and Brecknock in South Wales; it begins a few miles from the coast, and soon after comes near and follows the course of the Uske River, no part of it being very greatly elevated. Its objects are the exportation of coals, iron, and other mineral products of the country round Abergavenny, by means of the Monmouthshire Canal, and the supply of Pontypool, Abergavenny, Crickhowel, and Brecon towns, that are near its course. It commences in the Monmouthshire Canal, one mile from Pontypool, and terminates at Brecon: it has rail-way branches to Abergavenny, Wain Dew collieries, &c., and to Llanguiney. From the Monmouthshire Canal, the first fourteen miles and a-half are level, to three miles above the Abergavenny branch, whence to Brecon is eighteen miles and a-half, with a rise of sixty-eight feet. Near its commencement it crosses the little river Avon, on an aqueduct, and shortly afterwards passes a tunnel of 220 yards in length.

The *Derby* Canal runs nearly north for about nine miles in the county of Derby; it is not greatly elevated above the level of the sea. Its objects are the supply of Derby, and the export of coals and iron. It commences in the Trent

River at Swardstone Bridge, crosses and intersects the Trent and Mersey Canal, and terminates at Little Eaton, nearly four miles above Derby, from which town a cut of eight miles and a-half goes off to a place between Sandiacre and Long Eaton, and there joins the Erewash Canal. The canal is forty-four feet wide at top, twenty-four at bottom, and five feet deep, except the upper level next Little Eaton, which is made six feet deep to retain the water of wet seasons like a reservoir: the locks are ninety feet long, and fifteen feet wide within-side.

The general direction of the *Droitwich* Canal is about north-east, for five miles and three-quarters, in the county of Worcester; it is not greatly elevated above the sea; its objects are the export of salt and the import of coals, of which many thousand tons are annually imported, and used in the boiling of salt, except what the town of Droitwich consumes. It commences in the river Severn at Hawford, and terminates at Chapel Bridge in Droitwich; it has a rise of fifty-nine feet and a half by eight locks. This canal was executed by Mr. Brindley, and it is said to present a pattern to canal-makers by the neatness and regularity of its curves, and the stability and excellency of all its works. The proprietors were authorised to raise £33,400, the amount of shares being £100. Owing to the overflowings of the copious salt-springs near Droitwich, this canal presents the curious spectacle of a salt-water canal, in the interior of the country, in which no river-fish can live.

The *Shrewsbury* Canal commences in Castle Foregate basin, at Shrewsbury, and terminates in the Shropshire Canal above Wrockandire-wood plain near Oaken Gates. From Shrewsbury to Langdon, nearly twelve miles, is level; thence to near Wombridge, four miles and a quarter, is a rise of seventy-nine feet by locks; thence is an inclined plane of seventy-five feet rise, and nearly one-eighth of a mile in length, to the Ketley Canal; thence to the Shropshire Canal, one mile and one-eighth, is level. The locks on this canal are contrived in two divisions by doors, which draw up, out of a recess formed for them below the locks, so that a long narrow canal boat of the usual construction, or two or four smaller and narrow flat-bottomed boats adapted to the inclined plane, can pass the same without unnecessary waste of water. Near Atcham is a tunnel of 970 yards in length, and ten feet wide, which has a towing path three feet wide through it, constructed of wood, and supported on bearers from the wall, so as not to diminish the water-way. At Long is a long embankment and aqueduct bridge, or rather trough of cast-iron, over the Tern River, sixty two yards long, and sixteen feet above the level meadows; at Roddington is another embankment and a common aqueduct bridge, twenty-one feet above the surface of the Roden River, over which the canal passes; and at Pimley there is another embankment and aqueduct of less height and width than the former ones. At Wombridge there is a double inclined plane of 223 yards in length, and seventy-five feet perpendicular rise, up one of which empty or partly laden boats are drawn by the aid of a steam-engine, or by the descent of a loaded boat

at the same time on the other, as we have before described.

The general direction of the *Grand Western* Canal, is nearly north-east for about thirty-five miles, in the counties of Devon and Somerset : it crosses the south-western branch of the grand-ridge ; its objects being a connexion between the southern coast and the Bristol Channel, the supply of the country with coals, deals, &c., and the export of farming produce. It commences in the tide-way of the river Exe at the town of Topsham, and terminates in the Tone River at Taunton Bridge ; it has a cut of about seven miles to Tiverton, and other short ones to Cullumpton and Wellington.

The *Thames and Severn* Canal commences in the Stroudwater Canal at Wallbridge near Stroud, and terminates in the Thames and Isis Navigation at Lechlade : it has a branch of about one mile in length to the town of Cirencester. From the Stroudwater Canal to Sapperton or Salperton, seven miles and three-eighths, is a rise of 243 feet by twenty-eight locks ; thence the summit pound continues through the tunnel, two miles and three-eighths, to near Coates, and level ; thence to the Thames and Isis navigation, twenty miles and three-eighths, is a fall of 134 feet by fourteen locks. The first four miles of this canal, from Stroud to Brinscombeport basin, is of the same width and depth as the Stroudwater Canal, and is navigated by the Severn boats ; the remainder of the line is forty-two feet wide at top, thirty at bottom, and five feet deep ; at Brinscombeport, goods going eastward are removed into barges eighty feet long and twelve wide, which carry seventy tons each. The famous tunnel on this canal at Sapperton is 4300 yards long, the arch being fifteen feet wide in the clear, and 250 feet beneath the highest point of the hill, which proved to be hard rock, much of which required blasting, and some of it was so solid as to need no arch of masonry to support it ; the other parts are arched above, and have inverted arches in the bottom ; the cost of excavating this tunnel, in 1738, amounted to eight guineas per cubic yard.

The general direction of the *Peak Forest* Canal and rail-way is nearly south-east for twenty-one miles, in the counties of Chester and Derby ; its southern end is very considerably elevated, and terminates on, or very near to, the grand ridge ; its principal object is the export of the Peak-Forest lime, and of coals from the neighbourhood of this canal. It commences in the Manchester Ashton and Oldham Canal, at Duckenfield, and the canal terminates at the basin and lime-kilns in Chapel-Milton, whence a rail-road proceeds to Loadsknowl lime-stone quarries in the Peak. The line of the canal is fifteen miles in length, and of the rail-way six miles ; there is a cut of half a mile to Whaley Bridge, and a rail-way branch of one mile and a half to Marple. Over the Mersey River, near Marple, is a grand aqueduct bridge of three arches, each sixty feet span and seventy-eight feet high, the whole height of the structure being nearly 100 feet, which was built in 1799. Mr. Outram was the engineer, and the works were completed on the 1st of May 1800.

The *Oxford* Canal commences in the Thames and Isis navigation at Badcock's garden on the

west side of Oxford, and terminates in the Coventry Canal at Longford. At Hillmorton and at Napton are short cuts of about half a mile each, to the steam engines belonging to this company. From the Thames and Isis at Oxford to Banbury, twenty-seven miles and a quarter, is a rise of 118 feet by eighteen locks (including two weir-locks and an entrance lock from the Isis) thence to Claydon, seven miles and a quarter, is a rise of seventy-seven feet and one-third by twelve locks ; thence (through the Fenny Compton tunnel) the summit pound continues to Marton-doles wharf ten miles and three-quarters, and level ; thence to Napton on the hill, two miles, is a fall of fifty-five feet and a quarter by nine locks ; thence to Hillmorton, sixteen miles and three-quarters (in which the Warwick and Napton and the Grand-Junction join), is a level ; thence in half a mile is a fall of nineteen feet by three locks ; thence to the Coventry Canal at Longford, twenty-six miles and a half, is level. This canal is twenty-eight feet wide at top, sixteen feet at bottom, and four feet and a half deep, except the summit-pound, which is made six feet deep in order to act as a reservoir ; the locks are seventy-four feet and three-quarters long, and seven feet wide. The Fenny Compton tunnel is 1188 yards long, nine feet and one-third wide, and fifteen feet and a half high. At Newbold is a tunnel 125 yards long, made under the church yard and street, sixteen feet high, and twelve feet and a half wide, with a towing path through it. At Wolfhancote, also, there is a short tunnel. At Pedlars Bridge near Brinklow is an aqueduct bridge of twelve arches, of twenty-two feet span each. At Cosford on the Swift River, and at Clifton on the Avon, are others of two arches each ; at Wolfhancote, Adderbury, and Hampton Gay, are other smaller aqueducts.

The general direction of the *Dorset and Somerset* Canal is nearly south for about forty miles in the counties of Wilts, Somerset, and Dorset : the middle part of it is on a high level, and crosses the south-western branch of the grand-ridge. Its principal objects are the supply of the manufacturing towns and neighbourhood through which it passes with coals, from the mines bordering on Mendip, and the opening of an inland communication between the Bristol Channel, the Severn, the Thames, and the southern coast of the island. The commencement is in the Kennett and Avon Canal at Widbrook, near Bradford, and the termination in the Stour River near Gains-cross in Shillingstone-Okeford ; from near Frome a branch of about nine miles proceeds to Nettlebridge collieries in Midsummer-Norton.

The *Hereford and Gloucester* Canal has for its object the export of coals from the neighbourhood of Newent, and of the cyder and agricultural products of the country. It commences in the tide-way of the Severn River at Gloucester, crosses Alney Isle and another branch of the Severn to Lassington, and terminates near the Wye River at Byster's gate in Hereford : it has a short cut to Newent. From the Severn to Ledbury the distance is eighteen miles, with a rise of 195 $\frac{1}{2}$ feet ; thence to Monkhide is eight miles and a half on the summit level ; thence to Withington Marsh it is three miles, with a fall of thirty feet ; and thence to Hereford, six miles, it

is level. Newent cut is level. On this line are three considerable tunnels, that at Oxenthal is 2192 yards in length; at Cannon-Frome is one of 1320 yards; and near Hereford another of 440 yards in length. Mr. Joseph Clowes was the engineer: in July, 1796, this canal was finished, from the Severn to Newent, and in March, 1798, the Oxenthal tunnel was finished, and the navigation extended to Ledbury, and coals were in consequence reduced in price at that town from 24s. to 13s. 6d. per ton.

The situation of the *Coventry* Canal is high, particularly the eastern part, which crosses the grand ridge near Bedworth, without a tunnel, and its Seeswood branch does the same. Its general objects are, the line of communication between London, Birmingham, Manchester, Liverpool, &c.; the export of coals from the numerous mines near it; and the supply of Coventry. It commences in the Birmingham and Fazely Canal at Fazely, and terminates in the Oxford Canal at Longford; its detached part, of five miles and a half in length, commences at the termination of the Birmingham and Fazely Canal at Whittington Brook, and terminates in the Trent and Mersey Canal at Fradley Heath; near to Whittington Brook it connects with the Wyrley and Essington Canal, and at Marston Bridge the line is joined by the Ashby-de-la-Zouch Canal. There is a cut of about one mile in length to Griff collieries; another to several collieries by different branches near Seeswood Pool and Bedworth, five or six miles in length: there is also a cut of half a mile from the line to Bedworth; the branch to Coventry is four miles and three-quarters in length; and there is a rail-way branch to Oldbury coal-works. The detached part is level with the Trent and Mersey Canal, which level continues (through five miles and a half of the Birmingham and Fazely) to the commencement of the line of this canal at Fazely; thence to Atherstone, a distance of about ten miles, the rise is ninety-six feet, by means of thirteen locks; thence to the Oxford Canal, about twelve miles, is level; so is the cut to Coventry, and those to Griff, Seeswood Pool, Bedworth, &c. The last or highest level of this canal forms, with part of the Oxford and Ashby canals, the longest level that is to be found in Britain, being upwards of eighty-two miles, including side branches.

The objects of the *Worcester* and *Birmingham* Canal are the export of coals, and a more direct communication between Birmingham and the Severn. It commences in the Severn at Diglis, just below Worcester, and terminates in the old Birmingham and Fazely canals, at their junction at Farmer's Bridge at the upper end of Birmingham. From the Severn to Tardebig, fifteen miles, is a rise of 428 feet, by seventy-one locks; thence to the Birmingham Canal, fourteen miles, is level. The width of the canal at top is forty-two feet, and the depth is six feet; the locks are eighty feet long and fifteen feet wide. At Worcester there is a very fine basin for the canal boats. There are four or five principal, and several smaller culverts: the principal tunnel at West Heath is 2700 yards long, eighteen feet high, and eighteen feet and a half wide within the arch; the depth of water therein is seven feet and a half: at Tardebig is another of 500 yards in length; at Shortwood is another of 400 yards in length; at Oddingley one of 120 yards; and at Edgbaston another of 110 yards in length: four of these tunnels are upon the summit-pound. 157

The *Warwick* and *Birmingham* Canal commences in the Warwick and Napton Canal, in Budbrook parish near Warwick, and terminates in the Dibbeth cut of the Birmingham and Fazely Canal at Dibbeth near Birmingham. From the Warwick and Napton Canal, about half a mile, to near Budbrook Town, is level; thence two miles and a half, to Hatton, is a rise of about twenty locks; thence to the Stratford branch, about five miles, is level; thence to Knowle Common, about four miles and a half, is level; thence to Knowle Wharf, one mile, is a fall of about seven locks; thence to near Deritend, about ten miles, is level; thence to the Dibbeth branch of Birmingham and Fazely, one mile and a half, is a rise of about five locks. At Haseley there is a tunnel of 300 yards in length; at Henhood Wharf there is an aqueduct over the Blythe River; near Flint Green another over the Cole River; and near its termination at Dibbeth another over the Red River.

We may now furnish a list of the ascertained levels of the principal canals, in reference to the summit of the Birmingham canal, between Wolverhampton and Smithwick.

	Above summit of Birm. Canal.	Below summit of Birm. Canal.
Feet. In.	Feet. In.	
132 0	0 0	
19 10		
100 3		
136 7		
171 5		
188 11		
264 10		

1. Birmingham Canal Navigation.

Commencement at Autherley	
Summit at Wolverhampton	
Fall at Smethwick, and then level to Birmingham	
Junction of branch to Dibbeth, lower end of the town	
And junction with Warwick Canal	
Salford Bridge—Berwood Common	
Curdworth—Dunton	
Fazely and Whittington Brook	

2. Ashby-de-la-Zouch.

Commencement in Coventry Canal at Griff, and level to Hinckley and Ashby Wolds	
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	Above summit of Birm. Canal.	Below summit of Birm. Canal.
	Feet. In.	Feet. In.
Summit at Ashby-de-la-Zouch		28 9
Cloud Hill—Staunton—Ticknall		112 9
3. Ashton-under-Line.		
Junction with Rochdale Canal		315 4
Clayton, and branch to Stockport level		224 10
Ashton-under-Line—Duckenfield Bridge		152 10
Branches to Fairbottom and Hollinwood		106 7
Werueth colliery branch		76 7
4. Avon River.		
At Bath Old Bridge		439 11
At Bristol		474 11
5. Bradford Canal.		
Junction with Leeds and Liverpool Canal at Windhill		239 5
Bradford		158 5
6. Bridgewater's (Duke of).		
Mersey at Runcorn, high water		474 11
Do. low water		485 11
Preston Brook—Manchester, and Leigh branch		390 11
		264 10
7. Coventry.		
Fradley Heath, and Whittington Brook		250 4
Glascote, Grendon, and Polesworth		163 9
Atherstone, Nuneaton, Bedworth, and Coventry		
8. Derby Canal.		
Junction with Grand Trunk Canal		349 0
Derby		337 0
Little Eaton		320 0
Branch to join Erewash Canal		364 0
9. Douglas (Lower).		
Junction with Leeds and Liverpool Canal at Brier's Mill		420 11
Ribble River, near Hasketh		469 0
10. Droitwich.		
Severn at Hawford		442 10
Droitwich		383 4
11. Dudley.		
Junction with Worcester Canal at Letty Oak, and level to Leasowes, and Blowers's Green		19 10
Netherton		31 0
Black Delph—Pensnett Chace		116 0
Junction with Birmingham Canal at Tipton Green		0 0
12. Grand Junction Canal.		
Commencement in Oxford Canal at Braunston		149 10
Junction of Grand Union Canal, and Daventry branch		113 10
Junction of Northampton branch		173 10
Wolverton level, and junction of Buckingham branch		251 4
Junction of Aylesbury branch		138 10
Tring summit, and branch to Wendover		93 10
Bull's Bridge, and Paddington branch		398 10
High-water mark in the Thames at Brentford		488 10
Branch to Daventry rises		59 10
Branch to Northampton and New River there		291 10
Branch to Buckingham		234 4
Branch to Aylesbury		234 10
Branch to Wendover		93 10
Branch to Paddington		398 10
13. Grand Trunk.		
Duke of Bridgewater's Canal at Preston Brook		390 11
Summit of Canal at Etruria		64 9
Junction of Staffordshire and Worcestershire Canal at Heywood		232 6
Junction of Coventry Canal at Fradley Heath		264 10
Junction of Derby Canal		349 0

	Above summit of Birm. Canal.	Below summit of Birm. Canal.
	Feet. In.	Feet. in.
River Trent at Shardlow and Wilden Ferry		
Branch from summit to Uttoxeter, v.z. to Leek and Stanley Moor	10 2	
Froghall (and Caldon rail-way, which rises 649 feet)		50 7
Uttoxeter		182 7
14. <i>Grand Union and Union Canals.</i>		
Junction with Grand Junction Canal near Long Buckby		113 10
Summit		59 7
Foxton, and junction with Union Canal		134 7
West Bridge, at Leicester		294 7
15. <i>Huddersfield.</i>		
Junction with Ashton Canal at Duckenfield Bridge		152 10
Summit at Saddleworth	181 10	
Huddersfield		254 1
16. <i>Kennett and Avon Canal</i>		
River Avon at Bath		439 11
Sidney Gardens, Bath		373 5
Bradford, Wilts, and Semington Junction		363 5
Foxhanger		307 5
Devizes		68 5
Summit at Brimscombe		35 5
Crofton Engine		74 5
Kennett River at Newbury		245 5
17. <i>Kennett River.</i>		
At Newbury, and Junction with Canal		245 5
Thames at Reading		387 5
18. <i>Leicester Navigation.</i>		
West Bridge, Leicester		294 7
Junction of Melton Navigation		316 1
Mount Sorrel		329 11
Loughborough, and Loughborough Canal		344 7
To Thringstone Bridge, Charnwood Forest, and to Barrow Hill (part by a railway).		159 7
19. <i>Loughborough Navigation.</i>		
Junction with Leicester Navigation		344 7
River Trent, near Sawley		385 7
20. <i>Melton Navigation.</i>		
Junction with Leicester Navigation		316 1
Ratcliffe		300 2
Melton Mowbray		245 2
21. <i>North Wilts.</i>		
Junction with Wilts and Berks Canal (at the summits)		162 11
Do. with Thames and Severn Canal, at Latton near Cricklade		221 11
22. <i>Oxford Canal.</i>		
Junction with Coventry Canal at Longford		168 9
Hill Morton—Union of Grand Junction Canal at Braunston		149 10
Summit at Claydon		94 7
Banbury		171 11
Aynho Wharf		207 8
Heyford Warren		231 10
Hampton Gay		262 10
Isis at Godstone		282 9
Oxford		286 5
River Isis at Oxford		289 11
23. <i>Peak Forest Canal.</i>		
Junction with the Ashton-under-line Canal		152 10
Priestfield	59 2	
Chapel Milton	188 2	
24. <i>Ramsden's Canal.</i>		
Junction at Huddersfield		254 1
River Calder, at Cooper's Edge		310 10

	Above summit of Birm. Canal.	Below summit of Birm. Canal.
	Feet. In.	Feet. In.
<i>25. Staffordshire and Worcestershire.</i>		
Severn at Stourport		436 8
Kidderminster		373 1
Stewpony and Stourbridge Canal		298 2
Bumble Hole		229 2
Summit and junction with Birmingham Canal at Autheray		132 0
Penkridge		179 0
Heywood		232 6
<i>26. Stourbridge.</i>		
Junction with Dudley Canal at Black Delph		116 0
Stourbridge		260 0
Stewpony and junction of Staffordshire and Worcestershire Canal		293 2
<i>27. Stratford.</i>		
Junction with Worcester Canal at King's Norton		19 10
Cut to join the Warwick Canal		136 7
Preston, Wootton, Wawden, and Edstone Valley, Wilmcote		242 7
Stratford		333 7
Surface water of the River Avon		354 7
<i>28. Stroud.</i>		
Junction with Thames and Severn near Stroud		361 0
Severn at Framilodd		463 5
<i>29. Thames and Severn.</i>		
Junction with Stroud Canal, near Stroud		361 0
Summit, Siddington and Cirencester		119 9
Cricklade		221 11
Lechlade and River Thames		250 3
<i>30. Thames River.</i>		
At Lechlade		250 3
At Oxford		289 11
At Abingdon and at Culham		330 11
At Reading		387 5
At Brentford		488 10
<i>31. Warwick Canal.</i>		
Junction at Digbeth near Birmingham		136 7
Summit at Bordesley and Knowle		94 7
Hatton		136 7
Warwick, and junction of Napton Canal		282 7
<i>32. Warwick and Napton Canal.</i>		
Junction near Warwick		282 7
Leamington		296 7
Summit at Napton and Oxford Canals		149 10
<i>33. Western Junction proposed Canal.</i>		
Aylesbury branch of Grand Junction Canal		234 10
Thames at Culham, near Abingdon		330 11
<i>34. Wilts and Berks.</i>		
Kennett and Avon Canal at Semington		363 5
Chippenham (a level branch)		308 11
Colne (ditto)		292 11
Summit, South Marston, and North Wilts Canal		162 11
River Wantage		234 5
Abingdon and River Thames		330 11
<i>35. Worcester.</i>		
Commencement at Birmingham—level to Tardisby		19 10
Lowesmore and Worcester		403 10
Severn at Diglis		447 10
Branch to Droitwich		383 4
<i>36. Wyrley and Essington.</i>		
Commencement near Wolverhampton	0 0	0 0

INLAND NAVIGATION.

33

	Above summit of Birm. Canal.	Below summit of Birm. Canal.
	Feet. In.	Feet. In.
Junction with detached part of Coventry Canal, near Huddlesford		264 10
Branch to Wyrley bank	36	
Branch to Easington Collieries	60	
37. <i>Rochdale.</i>		
Manchester—Knott Mill		390 11
Ashton Canal		315 4
Falsworth		134 11
Rochdale		14 11
Summit at Dean Head	130 0	
Dob Royal		32 11
Todmorden		56 11
Sowerby Wharf		217 11
River Calder		227 11

The new *Grand Ship* canal from London to Portsmouth, suggested by Mr. Cundy, may be thus briefly described, though the advantages that are likely to be derived from its complete adoption are of so important a character as to place it, in point of national importance, far beyond any of those that have hitherto been examined.

This canal, and the several works connected therewith, are intended to accommodate vessels of the largest dimensions, when fully loaded, so as to enable them to pass each other; for this purpose twenty-eight feet depth of water will be required, and about 150 feet in width, with about four locks, 300 feet in length and sixty-four in breadth, up to the summit level.

The canal will commence with two branches at Rotherhithe, nearly opposite the London and West India Docks, near the Victualling Office, and will proceed from thence in a south-west direction, to Walworth Common, by the foot of Brixton Hill, to Streatham Common; then between the towns of Mitcham and Tooting, to Malden, Ewell, Epsom, Leatherhead, and Dorking, over Homewood Common, down the vale to Ockley, and the Roman turnpike gate, a little below Slinfold, Newbridge, Pulborough, by Hardham, Greatham, Amberley, Burkham, Arundel (and a small branch to Arundel Bay), and lastly to Chichester, Emsworth, Langston Harbour, South Sea Common, and Spithead.

From the river Thames, on the line of Malden, the ground is remarkably level, and composed of stiff loam or brick earth; from Malden to Epsom there will be extra cutting through a chalky under-stratum to Leatherhead; from Leatherhead to Dorking it is nearly a level, under the winding of the hills in Michelham Vale, through chalky under-stratum, and a stiff loamy soil; in passing Dorking to Homewood Common there will be considerable extra cutting, on the average from 120 to 130 feet deep, for about four miles, partly through a bed or deposit of sandstone, chalk, and strong brick earth; from thence it will fall into the vale of the River Arun, by Bare Farm to Ockley Church, and then proceed to Newbridge and the tide-way at Pulborough; from thence the ground is level, through a strong stiff clayey and sandstone soil, and will pass below Arundel,

in a direct line to Chichester, Emsworth, and Spithead.

The line of canal is remarkably straight, and will take a direction so fortunately as not to deteriorate any town or village in its course, running through a considerable portion of common and open lands; and thus rendering a work of this magnitude less objectionable than any similar plan hitherto projected.

It has not escaped the projectors, that such a measure might at first sight appear seriously inconvenient to public travelling; care, however, has been taken to avoid that concurrence as much as possible, and, where it could not be prevented, arrangements are proposed which it is conceived will fully obviate this objection, and secure the convenience of the traveller.

As this canal is intended to be cut through the general level of the earth, it will receive an abundant supply of water flowing from its innumerable springs and tributary streams, as feeders from the Mole, the Way, and the Arun, and which will overflow its banks at the appropriate places provided for that purpose, at the summit level and on the line of canal.

The water will have no perceptible current in the canal; yet it will be purified and changed every day by the flowing of the springs and other streams. No mill-stream, dam, or river will be obstructed by this canal, as they will be provided for by cast iron tunnels, passing under its bed, so that the rivers, &c., may continue their present course.

General Estimate of the Expense of the Ship Canal.

To the excavation of the canal at £30,000 per mile, seventy-eight miles, twenty-eight feet deep, and 150 feet wide top water	£ s. d.
	2,340,000 0 0
To excavating the basins, at the two extremities of the canal, with dock gates, brick and stone work, &c.	100,000 0 0
To masons, bricklayers, carpenters, smiths, foundry works to locks, bridges, tunnels, embankments, punts, &c.	474,000 0 0
	D

	£.	s.	d.
To purchase of land, timber houses, goodwill, leases, &c.	250,000	0	0
To extra cutting from Dorking to Ockley	600,000	0	0
Contingencies, and for extra cutting from Epsom to Dorking, and from Arundel to Chichester, and Spithead, puddling, &c.	215,420	0	0
	<hr/>		
	£3,979,420	0	0

A canal forming a junction between the rivers *Forth* and *Clyde*, was begun in 1768, and finished in 1790, when, on the 28th of July, a hogshead of the water of the Forth was poured into the Clyde as a symbol of their junction. This canal in its dimensions is much superior to any work of the same nature in England. It is thirty-five miles in length, in the course of which navigation the vessels are raised, by means of twenty locks, to the height of 155 feet above the level of the sea; proceeding afterwards on the summit of the country for eighteen miles, it then descends by nineteen other locks into the Clyde. It is carried over thirty-six rivers and rivulets, and two great roads, by thirty-eight aqueducts of hewn stone. By one of these, 400 feet in length, it passes the Kelvin, near Glasgow, at the height of 70 feet above the bed of the river in the valley below. It crosses the great road from Edinburgh to Glasgow by a fine aqueduct bridge, and is carried over the water of Logie by another aqueduct bridge, the arch of which is ninety feet broad. The great utility of this communication between the eastern and western seas to the trade of Great Britain and Ireland must be evident from the consideration that it shortens the distance between them by the shortest passage, that of the Pentland Firth, nearly 600 miles.

We have already entered so fully into the local history of canals in this country that our limits will permit but a brief notice of the great northern canal which unites the eastern and western oceans by *Inverness* and *Fort-William*. In 1773 Mr. Watt was appointed by the trustees for certain forfeited estates in Scotland, to make a survey of the central highlands. Mr. Watt, in his report to that public body, recommended, amongst other improvements for the highlands, the formation of the *Crinan Canal*, which has long since been executed, and also of the *Caledonian Canal*, from *Inverness* to *Fort-William*.

In the Parliamentary Reports the *Caledonian Canal* is generally laid out in three districts, viz. the Clachnaharry or eastern district, comprehending the works from *Loch Beauly* to *Fort-Augustus*; the middle district, extending to the west end of *Loch Lochy*; and the Corpach or western district, from *Loch Lochy* to *Loch Eil*, or the western sea. With regard to the middle district, we observe that hitherto the sum annually allowed for this work ~~does~~ not admit of every part being carried on with equal vigor. The works of this compartment have, therefore, been almost wholly confined to excavating the ground;

it being of importance to have the eastern end opened to *Loch Ness*, and the western division to *Loch Lochy*, before much was done to the masonry of the central parts; in order to facilitate the transport of materials from the respective seas. This is now accomplished.

The extent of the navigation comprehended in the middle district is about twelve miles. The whole height, from the *Beaulay Firth* or the east sea to *Loch Oich*, the summit level of the canal, is stated at about ninety-four feet; and, as fifty-three feet of this has been overcome in rising to *Loch Ness*, it appears that about forty-one feet will form the rise of the lockage of the middle district, while the fall on the western side to *Loch Eil* is only ninety feet. This is to be overcome by a chain of four locks at *Fort-Augustus*, and one at *Callachie*, nearly three miles westward, independently of the regulating lock within half a mile of *Loch Oich*. The lock at *Callachie* is curiously situate, being founded and built upon a dike or stratum of rock, called *Grey Wacke* by mineralogists, which runs across the moor, and is indeed the only piece of rock on this part of the line of the canal. It is just large enough for the site of the lock, and was preferred to a gravel as a foundation. This rock being very compact, it rendered an inverted arch for the lock unnecessary.

From *Loch Lochy* to *Loch Eil* the distance is about eight miles, on which the canal works may now be considered as finished, having kept pace with those of the eastern district. The works of this compartment, both in regard to masonry, excavation, and embankment, have been more expensive than those of the eastern division; in particular, the deep cutting at *Moy*, *Strone*, and *Muirshearlich*, and excavating the sites of the locks and basin for shipping at *Corpach* in rock. But, perhaps, if all the expense of the foundations and earth work on the *Beaulay Firth* are taken into account, they may be found to have been as expensive, if not more so, than the blasting of rocks on the *Corpach* district.

In our progress towards the western sea-lock of *Loch Eil*, after passing through the aqueduct of the Lower *Banavieburn*, we reach the famous chain or suite consisting of eight locks, not unaptly termed 'Neptune's Staircase.' This majestic chain of locks was finished, excepting the gates, in 1811. The cost of these locks may be stated at about £50,000. They occupy a range of 500 yards, and rise altogether about sixty feet perpendicular. The common void or cavity of the lock-chambers is forty feet in width, and the depth twenty feet; the bottom, forming an inverted arch, gives the whole a very grand appearance, presenting the greatest mass of masonry any where to be found, as applicable to the purposes of a canal. After passing this interesting part of the work, the canal gets easily along *Corpach Moss* (to the House of *Corpach*, the former seat of the *Camerons of Loch Eil*). Here a doubled lock is situate, connected with a basin for shipping, measuring 250 yards in length by 100 yards in breadth, which joins the sea lock, and so communicates with the Western Ocean by two mounds projecting about

350 yards into Loch Eil, and completing the inland navigation of the Caledonian Canal from sea to sea.

It appears, from the first report of the commissioners for making the Caledonian Canal, that the sum of £60,521 10s. 10*sd.* had been expended in the preparatory measures for this great undertaking. In the session of parliament, 1801, another act was passed, entitled ‘An Act for making further Provision for making and maintaining an Inland Navigation, commonly called the Caledonian Canal, from the eastern to the western Sea, by Inverness and Fort William in Scotland.’ By this additional act a further provision of £50,000 was made for this undertaking.

In the month of June, 1804, the commissioners resolved that Mr. Jessop should again visit the line of the intended navigation in concert with Mr. Telford, that they might jointly inspect the progress of the works already commenced, and re-examine all the particulars of the former survey; that they might determine the position of each lock on the whole line of the canal, and, as far as possible, fix the situation, dimensions, and construction of the bridges, culverts, and other necessary works; and that they might take into consideration the manner in which it would be most convenient to connect the line of the canal with the several lochs or lakes forming part of the intended navigation; and also fix and arrange the price of labor, and the mode in which the several works would be most advantageously let or contracted for.

During the year 1803 the operations were merely of a preparatory nature, and the number of workmen did not exceed 150. But in the year following they were increased to upwards of 900, when it became necessary to appoint resident engineers, particularly at the extremities of the line, to which the first works were entirely confined. For this highly important charge Mr. Matthew Davidson, who had acquired much experience at the works upon the Elsemere Canal, particularly at the great aqueduct of Pontycyfelle in Denbighshire, was appointed to the eastern division, and Mr. John Telford took charge at the western end.

The *Grund Canal*, in Ireland, was commenced soon after the year 1753. The general direction of this canal is nearly west, for sixty-one miles and a half, through Dublin, Kildare, and King’s counties: it passes a low part of the grand ridge of Ireland, on the Bog of Allen. Its objects are, the supply of Dublin with coals, &c.; the varied produce of the banks of the Shannon; and opening an inland communication through the country. It commences in a grand basin in Dublin (which connects with the Liffey River and the new docks), and terminates in the Shannon River at Tarmonbury, near Moy’s Town; it has collateral branches to the Boyne River at Edenderry, to the Barrow River at Monestraven, and also at Portarlington; there are also branches to Naastown and to Johnstown. This canal is five feet deep; the locks are eighty feet long and sixteen wide in the clear, and are built of hewn stone. In the year 1770 this canal had proceeded from Dublin into the Bog of Allen, when,

owing to mismanagement, it stood still for several years; and it was not until the beginning of 1804 that the whole line was finished and opened. The sums of the public money which have been granted by the parliaments to aid this work are immense; between 1753 and 1771 they amounted to £78,231.

The French at present have many fine canals: that of *Briare* was begun under Henry IV., and finished under the direction of cardinal Richelieu in the reign of Louis XIII. This canal makes a communication betwixt the Loire and the Seine by the river Loing. It extends eleven French great leagues from Briare to Montargis. It enters the Loire a little above Briare, and terminates in the Loing at Cepoi. There are forty-two locks on this canal.

The canal of *Orleans*, for making another communication between the Seine and the Loire, was begun in 1675, and finished by Philip of Orleans, regent of France, during the minority of Louis XV., and is furnished with twenty locks. It goes by the name of the ‘Canal of Orleans;’ but it begins at the village of Combleux, which is a short French league from the town of Orleans.

But the greatest and most useful work of this kind is the junction of the ocean with the Mediterranean by the canal of *Languedoc*. It was proposed in the reigns of Francis I. and Henry IV., and was undertaken and finished under Louis XIV. It begins with a large reservoir 4000 paces in circumference, and twenty-four feet deep, which receives many springs from the mountain Noire. This canal is about sixty-four leagues in length, is supplied by a number of rivulets, and is furnished with 104 locks, of about eight feet rise each. In some places it passes over bridges of vast height; and in others it cuts through solid rocks for 1000 paces. At one end it joins the river Garonne near Thoulouse, and terminates at the other in the lake Tau, which extends to the port of Cete. It was planned by Francis Riquet in 1666, and finished before his death, which happened in 1680.

Of the canal of Languedoc, M. Say remarks in one of his recent works, that it cost £1,250,000 sterling, and that its annual returns at present do not exceed £15,000; that is, less than $\frac{1}{4}$ per cent. on the capital expended.

In the Dutch, Austrian, and French Netherlands, there is a very great number of canals; that from *Bruges* to *Ostend* carries vessels of 200 tons.

The Chinese have also a great number of canals; that which runs from *Canton* to *Pekin* extends about 825 miles in length, and was executed about 800 years ago.

In Spain the canal at *Zaragoza* begins at Segovia sixteen leagues north of Madrid, and is separated from the southern canal by the chain of mountains at Guadazama. From Segovia, quitting the Eresma, it crosses the Pisuegra near Valladolid, at the junction of that river with the Duero; then leaving Palencia, with the Carrion to the right, till it has crossed the river below Herrera, it approaches once more the

Pisuerga; and near Herrera, twelve leagues of Reinosa, there is a fall of 1000 Spanish feet. At Reinosa is the communication with the canal of Arragon, which unites the Mediterranean to the Bay of Biscay; and from Reinosa to the Suanzes, which is three leagues, there is a fall of 3000 feet. Above Palencia is a branch going westward, through Beceril de Campos, Rio Seco, and Benevente, to Zamora, making this canal of Castille, in its whole extent, 140 leagues.

The *Holstein Canal*, which joins the Baltic to the German Ocean, is a most important national work. The idea of this junction was conceived under Frederick IV., duke of Schleswig Holstein, but was not undertaken till the Russian government agreed to co-operate in promoting its success. It was begun in the spring of the year 1777, and was carried on by contractors, who engaged, for a certain yearly sum, to complete a certain portion of it. This canal, the whole length of which, from Kieler-Ford to Rendsburg, is equal to 10,650 poles of sixteen feet each, proceeds on a level with the Baltic to the first lock at Holtenach, where it rises eight feet six inches. It then proceeds to the second lock at Knop, 745 poles distant from Kieler-Ford, which has a rise of eight feet six inches, and then continues to near Suensdorf, where the third lock is situated, having a rise of the same height. Here the upper canal begins, and proceeds for the distance of 2413 poles, between Schwartenebec and Wittenbec to the fourth lock at the Upper Eyder, near Schinkel. This upper canal, which serves as a reservoir, has an influx of water from the neighbouring lakes sufficient for the purposes of navigation, and is twenty-five feet six inches higher than the level of the Baltic. At the fourth lock the canal falls seven feet four inches two lines; proceeds 1438 poles in the Eyder to the fifth lock at Nedderholten, where there is also a fall of the same height; and, having continued by Seestede to Steinwarp, 2901 poles, little more art is employed, because the Eyder between that place and Rendsburg has almost naturally the sufficient depth and breadth. A sixth lock is constructed at Rendsburg, as the tide flows up there in the Eyder, and makes, with the ebb, a difference of one foot seven inches. The breadth of this canal at the bottom is fifty-four feet, and at the surface of the water ninety feet. It is nine feet deep, and navigable for ships of from 150 to 160 tons burthen. The locks, therefore, between the gates are 100 feet in length and twenty-seven feet in breadth. Along the banks there is a path ten feet broad, and another of twelve feet for the horses which are employed to draw the vessels.

Inland navigation has not been entirely unattended to in Sweden. The canal of *Trolhaetta* has been worked with great labor, assisted by the powerful force of gunpowder, through the midst of rocks. The object was to open a communication between the North Sea and the Lake Wenner by forming a new channel where the Gotha is rendered unnavigable by cataracts. The length of this canal, in which there are nine locks, is nearly three miles, the width thirty-six feet, and

the depth in some places above fifty. ‘It is not easy,’ says a late judicious traveller, ‘for any one to form any idea of the difficulties that were to be surmounted in the formation of this wonderful canal, unless he were an eye-witness. It was undertaken and begun by Charles XII.; formed part of a grand plan meditated by Gustavus Vasa, and attempted by some of his successors, for joining the Baltic from the North Sea, by means of a communication cut through the kingdom. If a canal should be extended by the Lake of Wenner, by Oerebo, to the Lake of Hielmar, the Swedes may then, by a conjunction of this lake with that of Maelar, through the sluices of Arboga, transport all kinds of merchandise in the same vessel from Gothenburg to Stockholm. Thus a passage would be opened between the North Sea and the Baltic; and, among other advantages, the duties of the Sound would be avoided. The canal of Trolhaetta may justly be considered as, in some respects, characteristic of the Swedish nation, for it represents them as they are, prone to the conception of grand enterprises, and distinguished by mechanical invention.’

The *Great American Canal* was begun in 1817, and is the longest canal in existence, and though upon a small scale, as to breadth and depth, is, we believe, in point of pecuniary outlay, the greatest work of the kind ever executed. It is 335 miles in length, forty feet wide at the surface of the water, twenty-eight at the bottom, and four feet deep, and will cost about five millions of dollars (£1,100,000), or £3,000 per mile on an average. Such a vast undertaking, completed in the short period of seven years, by a state (New York) with 1,368,000 inhabitants, affords a striking proof of the energy and enterprise generated by free institutions. It is a work worth a thousand Escurials and Versailles, because it creates wealth, while these only consume it; and it is a monument of public spirit and national prosperity, while these are only monuments of idle magnificence, vain glory, and despotic oppression.

The canal, which extends from Black Rock, at the east end of Lake Erie, to Albany on the Hudson, will render their river the chief, almost the sole outlet, and New York the great emporium of a fertile country extending along the lakes, much larger than the British Isles, and fast filling with inhabitants. Proceeding eastward from Lake Erie the canal rises forty-eight feet, and from the summit level falls 601 feet to the Hudson, making an aggregate rise and fall of 649 feet, which is effected by seventy-seven locks. Two levels or reaches extend over sixty-five and seventy miles without lockage, a circumstance, perhaps, without a parallel, except in China. The stimulus it gives to improvement is already seen in the villages and towns which are springing up with astonishing rapidity along its whole course. Passage-boats and batteaux already ply on the canal. The former, which are generally of a size to carry ninety passengers, travel at the rate of 100 miles in twenty-four hours, and the charge is but three half-pence or two pence per mile.

INLAP'IDATE, *v. a.* Lat. *in* and *lapido*. To make stony; to turn to stone.

Some natural spring waters will *inlapidate* wood; so that you shall see one piece of wood, whereof the part above the water shall continue wood, and the part under the water shall be turned into a kind of gravelly stone. *Bacon.*

INLAY', *v. a. & n. s.* To diversify with different bodies inserted into the ground or substratum; to variegate: *inlay*, wood formed for inlaying.

They are worthy

To *inlay* heaven with stars.

Shakspeare. Cymbeline.

Look, how the floor of heaven

Is thick *inlaid* with patens of bright gold.

A sapphire throne, *inlaid* with pure

Amber, and coloures of the show'ry arch.

Milton.

Sea girt isles,

That like to rich and various gems *inlay*

The unadorned bosom of the deep. *Id.*

Under foot the violet,

Crocus, and hyacinth, with rich *inlay*

Broidered the ground. *Id.*

Here clouded canes 'midst heaps of toys are found, And *inlaid* tweezer-cases strow the ground. *Gay.*

This gorgeous arch, with golden worlds *inlay'd*,

Built with divine ambition. *Young's Night Thoughts.*

INLAW', *v. a.* In and law. To clear of outlawry or attainder.

It should be a great incongruity to have them to make laws, who themselves are not *inlawed*. *Bacon.*

IN'LET, *n. s.* In and lot. Passage; place of ingress; entrance.

Doors and windows, *inlets* of men and of light, I couple together; I find their dimensions brought under one. *Wotton.*

She through the porch and *inlet* of each sense Dropped in ambrosial oils till she revived. *Milton.*

Inlets among the broken lands and islands. *Ellis.*

I desire any one to assign any simple idea, which is not received from one of these *inlets*. *Locke.*

A fine bargain indeed, to part with all our commodious ports, which the greater the *inlets* are so much the better, for the imaginary pleasure of a straight shore. *Bentley.*

IN'L.Y, *adj. & adv.* From in. Internal: *In'MATE*, *n. s.* Within; secretly in the *In'MOST*, *adj.* heart. *Inmate*, one who dwells in the same house with others. *Inmost*, deepest within; remotest from the surface.

And they were *inly* glad to fille his purse, And maken him gret festes at the hale. *Chaucer. The Freres Tale.*

Her heart with joy unwonted *inly* swelled, As feeling wond'rous comfort in her weaker eld. *Spenser.*

'Tis you must dig with mattock and with spade, And pierce the *inmost* centre of the earth. *Shakspeare.*

Did'st thou but know the *inly* touch of love Thou would'st as soon go kindle fire with snow, As seek to quench the fire of love with words. *Id.*

I've *inly* wept,

Or should have spoke ere this. *Id. Tempest.*

Inmates are those that be admitted to dwell for their money jointly with another man, though in

several rooms of his mansion-house, passing in and out by one door. *Cowel.*

So spake the enemy of mankind, inclosed

In serpent, *inmate* bad! and toward Eve

Addressed his way. *Milton.*

There he dies, and leaves his race

Growing into a nation; and now grown,

Suspected to a sequent king, who seeks

To stop their overgrowth as *innate* guests

Too numerous. *Id. Paradise Lost.*

Whereat he *inly* raged, and, as they talked, Smote him into the midriff with a stone,

That beat out life. *Id.*

These growing thoughts, my mother soon perceiving

By words at times cast forth, *inly* rejoiced. *Id.*

Home is the sacred refuge of our life,

Secured from all approaches but a wife:

If thence we fly, the cause admits no doubt,

None but an *innate* foe could force us out.

Dryden.

The soldiers shout around with generous rage; He praised their ardour: *inly* pleased to see

His host. *Id. Knight's Tale.*

Rising sighs, and falling tears,

That show too well the warm desires,

That silent, slow, consuming fires,

Which on my *inmost* vitals prey,

And melt my very soul away.

Addison on Italy.

Comparing the quantity of light reflected from the several rings, I found that it was most copious from the first or *inmost*, and in the exterior rings became less and less. *Newton.*

He sends a dreadful groan, the rocks around Through all their *inmost* hollow caves resound.

Pope.

I go into the *inmost* court. *Culliver's Travels.*

INN, *n. s. v. n. & v. a.* *Sax. inn; Goth.*

INN'HOLDER, *n. s.* *inne. A house of enter-*

INN'KEEPER, *n. s.* *ainment for travellers; a house where students are boarded and taught, whence we still call the colleges of common law, inns of court; anciently used for town houses where great men resided when they attended court: inn, to take or give a temporary lodgng. Innholder and innkeeper, the person who has an inn and keeps lodgings and provisions for travellers.*

Alla goth to his *inne*; and, as him ought,

Arraid for this in every wise,

As ferforth as his coming may suffice.

Chaucer. The Man of Lawes Tale

Palmer, quoth he, death is an equal doon To good and bad, the common *inn* of rest;

But, after death, the trial is to come,

When best shall be to them that lived best.

Faerie Queene.

Now day is spent, Therefore with me ye may take up your *inn*.

Id.

The West, that glimmers with some streaks of day, Now spurs the lated traveller apace To gain the timely *inn*. *Shakspeare. Macbeth.*

Go some and pull down the Savoy; others to the inns of court: down with them all. *Id.*

He that ears my land, spares my team, and gives me leave to *inn* the crop. *Id.*

Howsover the laws made in that parliament did bear good fruit, yet the subsidy bare a fruit that proved harsh and bitter, all was *inned* at last into the king's barn. *Bacon's Henry VII.*

In thyself dwell ;

Inn any where : continuance maketh hell.

Donne.

Clergymen must not keep a tavern, nor a judge be
an *innkeeper*. *Taylor's Rule of Holy Living.*

How all this is but a fair *inn*,
Of fairer guests, which dwell within.

Sidney.

Like pilgrims to the appointed place we tend ;
The world's an *inn*, and death the journey's end.

Dryden.

One may learn more here in one day, than in a
year's rambling from one *inn* to another. *Locke.*

Mow clover or rye-grass, and make it fit to *inn*.

Mortimer.

We were not so inquisitive about the *inn* as the
innkeeper; and, provided our landlord's principles
were sound, did not take any notice of the staleness
of his provisions. *Addison.*

A factious *innkeeper* was hanged, drawn, and
quartered. *Id. Freeholder.*

INNS are licensed and regulated by justices of the peace, who oblige the landlord to enter into recognisances for keeping good order. If a person who keeps a common inn refuses to receive a traveller into his house as a guest, or to find him victuals and lodging on his tendering a reasonable price for them, he is liable to an action of damages, and may be indicted and fined at the king's suit. 'The rates of all commodities sold by inn-keepers,' says Blackstone, 'according to our ancient laws, may be assessed; and inn-keepers not selling their hay, oats, beans, &c., and all manner of victuals, at reasonable prices, without taking any thing for litter, may be fined and imprisoned, &c., by 21 Jac. I. c. 21. Where an inn-keeper harbours thieves, persons of infamous character, or suffers any disorders in his house, or sets up a new inn where there is no need of one, to the hindrance of ancient and well-governed inns, he is indictable and finable: and, by statute, such inn may be suppressed. Action upon the case lies against an inn-keeper, if a theft be committed on his guest by a servant of the inn, or any other person not belonging to the guest; though it is otherwise where the guest is not a traveller, but one of the same town or village, for there the inn-keeper is not chargeable; nor is the master of a private tavern answerable for a robbery committed on his guest: it is said that even though the travelling guest does not deliver his goods, &c., into the inn-keeper's possession, yet, if they are stolen, he is chargeable. An inn-keeper is not answerable for any thing out of his inn, but only for such as are within it; yet where he, of his own accord, puts the guest's horse to grass, and the horse is stolen, he is answerable, he not having the guest's orders for putting such horse to grass. The inn-keeper may justify the stopping of the horse, or any thing of his guest, for his reckoning, and may retain the same till it be paid. Where a person brings his horse to an inn, and leaves him in the stable, the inn-keeper may detain him till such time as the owner pays for his keeping; and, if the horse eats out as much as he is worth, after a reasonable appraisement made, he may sell the horse and pay himself; but when a guest brings several horses to an inn, and afterwards takes them all away except one, this horse so left

may not be sold for payment of the debt for the others; for every horse is to be sold, only to make satisfaction for what is due for his own meat.'

INNS also signify colleges of municipal or common law: the old English word for houses of noblemen, bishops, and others of extraordinary note, being of the same signification with the French word hotel.

INNS OF CHANCERY were probably so called because anciently inhabited by such clerks as chiefly studied the forming of writs, which regularly belonged to the cursitors, who are officers of chancery. The first of these is Thavie's Inn, begun in the reign of Edward III, and since purchased by the society of Lincoln's Inn. Besides this, there are New Inn, Symond's Inn, Clement's Inn, Clifford's Inn (anciently the house of lord Clifford), Staple Inn (belonging to the merchants of the staple), Lion's Inn (anciently a common inn with the sign of the lion), Furnival's Inn, and Bernard's Inn. These were formerly preparatory colleges for younger students; and many were entered here before they were admitted into the inns of court. Now they are mostly taken up by attorneys, solicitors, &c. They all belong to some of the inns of court, who formerly used to send yearly some of their barristers to read to them.

INNS OF COURT are so called because the students there are to serve and attend the courts of judicature; or because anciently these colleges received none but the sons of noblemen and gentlemen, who were to be qualified to serve the king in his court; as Fortescue affirms. In his time, he says, there were about 2000 students in the inns of court and chancery, all of whom were filii nobilium, or gentlemen born. But this custom has gradually fallen into disuse; so that, in the reign of queen Elizabeth, Sir Edward Coke does not reckon above 1000 students, and the number at present is considerably less; for which judge Blackstone assigns the following reasons: 1. Because the inns of chancery, being now almost totally filled by the inferior branches of the profession, are neither commodious nor proper for the resort of gentlemen of any rank or figure; so that there are very rarely any young students entered at the inns of chancery. 2. Because in the inns of court all sorts of regimen and academical superintendence, either with regard to morals or studies, are found impracticable, and therefore entirely neglected. 3. Because persons of birth and fortune, after having finished their usual courses at the universities, have seldom leisure or resolution sufficient to enter upon a new scheme of study at a new place of instruction; wherefore few gentlemen now resort to the inns of court, but such for whom the knowledge of practice is absolutely necessary, that is, who are intended for the profession. These inns of court, justly famed for the production of men of learning in the law, are governed by masters, principals, benchers, stewards, and other officers; and have public halls for exercises, readings, &c., which the students are obliged to attend and perform for a certain number of years, before they can be admitted to plead at the bar. These societies have not, however, any judicial

authority over their members; but instead of this they have certain orders among themselves, which have by consent the force of laws. For lighter offences persons are only excommunicated, or put out of commons; for greater, they lose their chambers, and are expelled the college; and, when once expelled out of one society, they are never received by any of the others. The gentlemen in these societies may be divided into benchers, outer barristers, inner barristers, and students. The four principal inns of court are, the Inner Temple and Middle Temple, heretofore the dwelling of the knights templars, purchased by some professors of the common law about 200 years ago; Lincoln's Inn and Gray's Inn, anciently belonging to the earls of Lincoln and Gray. The other inns are the two Serjeants' Inns.

INN, a large river in the south of Germany. The course is chiefly in a north-east direction, having its source in the Swiss canton of the Grisons, where it forms the romantic valleys called the Upper and Lower Engadine. It enters the Tyrol at Martinsbrück, and in a course of 250 miles traverses that province from west to east, and forms for some distance the boundary between it and Bavaria; enters the Bavarian circle of the Iser, and afterwards receives the Salza on the borders of Upper Austria. Here it separates Austria and Bavaria, till its course terminates at Passau, in its junction with the Danube. At Passau it is nearly 900 feet wide.

INNATE, *adj.*

INNATED, *adj.*

INNAT'NESS, *n. s.*

Fr. *inné*; Lat. *innatus*.

Inborn; natural; not su-

peradded. Innated is

improper.

The Drunian hath been cried up for an *innated* integrity, and accounted the uprightest dealer on earth.

Howel.

I live,

But live to die; and living see nothing
To make death hateful, save an *innate* clinging,
A loathsome yet all invincible
Instinct of life, which I abhor as I
Despise myself, yet cannot overcome—
And so I live.

Milton.

With eloquence *innate* his tongue was armed;
Though harsh the precept, yet the people charmed.

Dryden.

Mutual gravitation, or spontaneous attraction, cannot possibly be *innate* and essential to matter.

Bentley.

Yet well thy soul hath brooked the turning tide
With that untaught *innate* philosophy,
Which, be it wisdom, coldness, or deep pride,
Is gall and wormwood to an enemy,

Byron. Childe Harold.

INNAVIGABLE, *adj.* Lat. *innavigabilis*. Not to be passed by sailing.

If you so hard a toil will undertake,
As twice to pass the *innavigable* lake.

Dryden.

INNER, *adj.*

IN'NERMOST, *adj.*

From in. Interior; not outward; remotest from the outward part: more correctly, inmost.

But th' elfin knight with wonder all the way
Did feed his eyes, and filled his *inner* thought.

Spenser.

This attracts the soul,

Governs the *inner* man, the nobler part;
That other o'er the body only reigns.

Milton.

The kidney is a conglomerated gland, which is to be understood only of the outer part; for the *inner* part, whereof the papille are composed, is muscular.

Grew.

Many families are established in the West Indies, and some discovered in the *inner* parts of America.

Addison's Spectator.

The reflected beam of light would be so broad at the distance of six feet from the speculum, where the rings appeared, as to obscure one or two of the *innermost* rings.

Newton.

Thus, seized with sacred fear, the monarch prayed; Then to his *inner* court the guests conveyed.

Pope.

IN'NINGS, *n. s.* Lands recovered from the sea.

INNISFALLEN, an island of Ireland, in the lake of Killarney, county of Kerry, and province of Munster: in which are the ruins of a very ancient monastery, founded by St. Finian, the patron saint of these parts, to whom the cathedral of Aghadoe is also dedicated. The remains of this abbey are very extensive, its situation romantic and retired. Upon the dissolution of religious houses its possessions were granted to captain Robert Collam. The island contains about twelve acres, is agreeably wooded, and has a number of fruit trees. There was formerly a chronicle kept in this abbey, which is often cited by Sir J. Ware and other antiquaries, under the title of the Annals of Innisfallen. Sir J. Ware had a copy of them, of which there is an imperfect transcript among the MSS. of the library of Trinity College, Dublin. Bishop Nicholson, in his Irish historical library, informs us that the duke of Chandos had a complete copy of them down to 1320 in his possession.

INNISHANNON, a town of Ireland, in the county of Cork, Munster, 134 miles from Dublin; situated on the Bandon, six miles from Kinsale. It has a charter school for above thirty boys. A considerable linen manufactory, particularly of bed-ticking for the English market, has of late years been established here, which has considerably increased the trade and population. The river is navigable to Collier's Quay, about half a mile below the town. On the west side of the town is a stone bridge. This place was formerly walled, and of some note, as appears by the foundations of several castles and large buildings discovered in it. The town of Innishannon, together with its ferry, was granted to Philip de Barry by Henry V. by letters patent in 1412. It has two fairs.

INNISKILLING, a borough, market, and post town of Ireland, in the county of Fermanagh, Ulster, lying between three lakes. It is about twenty-four miles east of Ballyshannon, and one hundred north-west of Dublin. It sends one member to the British parliament. Its inhabitants distinguished themselves in several engagements in the wars of Ireland at the Revolution, out of which a regiment of dragoons, bearing the title of the Inniskilliners, was mostly formed. They form the sixth regiment of dragoons in the British army.

IN'NOCENCE, n.s. French, *innocence*; Lat. *in* and *noceo*, *innocens*. Purity; untainted integrity; freedom from guilt; harmlessness; simplicity of heart; sometimes with some degree of weakness; ness; without mischievous intent. Innocent, one free from guilt or harm; a natural; an ideot. Innocuous, harmless in its effects. Innoxious, pure from crimes; free from mischievous effects; without injurious tendency.

All that may confound
Vertue and *innocence* thurgh thy malice
Is bred in thee as nest of every vice.
Chaucer. The Man of Lawes Tale.

Grisildi of this (God wot) ful *innocence*,
That for hire shapen was all this array,—
To fetchen water at a well is went,
And cometh home as soone as ever she may.

Id. The Clerkes Tale.

And whan this Walter saw hire patience,
Hire glad chere, and no Malice at all,
And he so often hadde hire done offence,
And she, ay, sade and constant as a wall,
Continuing ever hire *innocence* over all,—
This sturdly markis gan his herte dresse
To rew upon hire wifly stedefastnesse.

Chaucer. The Clerkes Tale.

Innocent Papet! whom too cruell hand
Did make the matter to avengen her yre;
And, ere she could thy cause well understand
Did sacrifice unto the greedy fire.

Spenser. Sonnet.

So pure an *innocent* as that same lamb.
Id. Fuerie Quene.

Innocents are excluded by natural defects.
Hooker.

It will help me nothing
To plead mine *innocence*; for that dye is on me
Which makes my whit'st part black. *Shakspeare.*

If truth and upright *innocency* fail me,
I'll to the king my master. *Id. Henry IV.*

Thou hast killed the sweetest *innocent*,
That e'er did lift up eye. *Id. Othello.*

If murthering *innocents* be executing,
Why, then thou art an executioner.

Id. Henry VI.

Something

You may deserve of him through tre and wisdom,
To offer up a weak, poor, *innocent* lamb,
To appease an angry god. *Id. Macheth.*

I urge this childhood proof,
Because what follows is pure *innocence*.

Shakspeare.

Good madam, keep yourself within yourself:
The man is *innocent*. *Id. Antony and Cleopatra.*

The blow which shakes a wall, or beats it down,
and kills men, hath a greater effect on the mind than
that which penetrates into a mud wall, and doth little
harm; for that *innocuousness* of the effect makes,
that, although in itself it be as great as the other,
yet 'tis little observed. *Digby on Bodies.*

Innoxious flames are often seen on the hair of men's
heads and horses' manes. *Digby.*

Balls at his feet lay *innocently* dead. *Cowley.*

Simplicity and spotless *innocence*. *Milton.*

Animals that can *innoxiously* digest these poisons,
become antidotal to the poison digested.

Browne's Vulgar Errors

We may safely use purgatives, they being benign,
and of *innovious* qualities. *Id.*

Whether quails, from any peculiarity of constitution,
do *innocently* feed upon hellesbore, or rather
sometimes but medically use the same. *Browne.*

What comfort does overflow the devout soul, from
a consciousness of its own *innocence* and integrity!
Tillotson.

We laugh at the malice of apes, as well as at the
innocence of children. *Temple.*

The peasant, *innocent* of all these ills,
With crooked ploughs the fertile fallows tills,
And the round year with daily labour fills.
Dryden.

The most dangerous poisons, skilfully managed,
may be made not only *innocuous*, but of all other
medicines the most effectual. *Grew.*

The air was calm and serene; none of those tumultuary motions and conflicts of vapours, which
the mountains and the winds cause in ours; 'twas
suited to a golden age, and to the first *innocency* of
nature. *Burnet's Theory.*

The humble and contented man pleases himself
innocently and easily, while the ambitious man at-
tempts to please others sinfully and difficultly.
South.

The spear
Sung *innocent*, and spent its force in air.
Pope.

Stranger to civil and religious rage,
The good man walked *innoxios* through his age.
Id.

Sent by the better genius of the night,
Innoxious gleaming on the horse's mane,
The meteor sits. *Thomson's Autumn.*

Sweet harmonist! and beautiful as sweet!
And young as beautiful! and soft as young!
And gay as soft! and *innocent* as gay!
Young's Night Thoughts. Narcissa.

Dear lovely bowers of *innocence* and ease,
Seats of my youth, when every sport could please,
How often have I loitered o'er thy green,
When humble happiness endeared each scene!
Goldsmith's Deserted Village.

But many a crime deemed *innocent* on earth
Is registered in heaven, and these no doubt
Have each a reward, with a cause annexed.
Couper.

There he long had dwelt,
There his worn bosom and keen eye could melt
O'er the *innocence* of that sweet child,
His only shrine of feelings undefiled.
Byron. Don Juan.

And girls of sixteen are thus far Socratic,
But *innocently* so, as Socrates. *Id.*

INNOCENT I., was born in Albany, and elected
Pope A. D. 402. He condemned the Novatians
and Pelagians; and died at Ravenna in 417.
Some of his Epistles are extant.

INNOCENT III., whose name was originally
Lothario Conti, was of a noble family, and born
at Anagni in 1161. His learning procured him
a cardinalship; and he was chosen pope in 1198.
He encouraged the Crusades; persecuted the
Albigenses; put the kingdom of France under
an interdict; and excommunicated John king of
England. He died in 1216; and his works were
printed at Cologne in 1575.

INNOCENT V., a Dominican friar, was archbi-
shop of Lyons, next a cardinal, and at last elected
pope, in 1276, but died a few months after. His
works on religion have been printed.

INNOCENT VI., a native of France, was bishop

of Ostia, and a cardinal; and in 1352 was promoted to the papacy. He was esteemed a man of great wisdom and liberality. His letters have been printed. He died in 1362.

INNOCENTS' DAY, a festival of the Romish Church, observed on December 28th, in memory of the massacre of the innocent children by the command of Herod. The Greek church in their calendar, and the Abyssinians of Ethiopia in their offices, commemorate 14,000 infants on this occasion.

It was anciently the custom to have dances in the churches on this day, wherein were children who represented bishops, by way of derision, as some suggest, of the episcopal dignity; though others, with more probability, suppose it done in honor of the innocence of childhood.

By a canon of the council of Cognac, held in 1260, these were expressly forbidden; but they were not wholly suppressed in France before the year 1444, when the doctors of the Sorbonne addressed a spirited letter on this subject to all the bishops of the kingdom.

INNOMINATI, nameless, a title by which the academists of Parma distinguish themselves. Most cities in Italy have an academy, and each has its proper name. Thus those at Parma entitle themselves Gli innominati, as if it was their character to have no name at all.

IN'NOVATE, *v. a.* { Fr. *innover*; Lat. *in-*

INNOVA'TION, *n. s.* { *novo*. To bring in some-

INNOVATOR, *n. s.* { thing unknown before; to change by introducing novelties. Innovation, change. Innovator, an introducer of novelties.

The love of things ancient doth argue stayedness; but levity and want of experience maketh apt unto innovations. *Hooker.*

I attach thee as a traitorous innovator,

A foe to the publick weal.

Shakspeare. Coriolanus.

He that will not apply new remedies, must expect new evils; for time is the greatest innovator: and if time of course alter things to the worse, and wisdom and council shall not alter them to the better, what shall be the end? *Bacon's Essays.*

It were good that men in innovations would follow the example of time itself, which indeed innovateth greatly, but quietly and by degrees. *Id.*

Men pursue some few principles which they have chanced upon, and care not to innovate, which draws unknown inconveniences. *Bacon.*

Former things

Are set aside like abdicated kings;

And every moment alters what is done,

And innovates some act till then unknown.

Dryden.

Every man cannot distinguish betwixt pedantry and poetry; every man therefore is not fit to innovate. *Id.*

He counsels them to detest and persecute all innovators of divine worship. *South.*

From his attempts upon the civil power, he proceeds to innovate God's worship. *Id.*

Curse on the innovating hand attempts it,

Remember him the villain righteous Heaven

In thy great day of vengeance! *Rowe's Jane Shore.*

Great changes may be made in a government, yet the form continue; but large intervals of time must pass between every such innovation, enough to make it of a piece with the constitution. *Swift.*

INNUEN'DO, *n. s.* Lat. *innuendo* from *in-* *nuo*. An oblique hint.

As if the commandments, that require obedience and forbid murder, were to be indicted for a libellous *innuendo* upon all the great men that come to be concerned. *L'Estrange.*

Mercury, though employed on a quite contrary errand, owns it a marriage by an *innuendo*. *Dryden.*

Pursue your trade of scandal-picking,

Your hints that Stella is no chicken;

Your *innuendoes* when you tell us,

That Stella loves to talk with fellows. *Swift.*

INNVIERTEL (i. e. the Quarter of the Inn), a district or circle of Upper Austria, comprising the territory lying between the Danube, the Inn, and the Salza. It was ceded to Austria by Bavaria in the treaty of Teschan in 1779; restored to Bavaria in 1810, but only retained till 1815. In that year also that part of the quarter of the Hausruck which Buonaparte had compelled Austria to cede to Bavaria was restored for an equivalent, and annexed to this circle; so that at present its extent is 1270 square miles. The chief towns are Braunau and Scharding. The southern division, lying towards the duchy of Salzburg, is intersected by well-wooded chains of mountains; and the tracts on the banks of the Danube and the Inn are fertile in wheat, barley, flax, and pasture. Inhabitants about 200,000.

INNU'MERABLE, *adj.* { Fr. *innumerable*;

INNU'MERABLY, *adv.* { Lat. *in* and *numerus*.

INNU'MEROUS, *adj.* { Not to be counted

for multitude; without number.

Ther was her tresour, of terrestrial richesse,—

Nor precious stones, rekeved *innumerabell*,—

To be of comparison to your high godenesse;

Above al cretures, to me most amiable.

Chaucer. The Craft of Lovers.

You have sent *innumerable* substance

To furnish Rome, and to prepare the ways

You have for dignities.

Shakspeare. Henry VIII

Twould be some solace yet, some little cheering,
In this close dungeon of *innumerus* boughs.

Milton.

Cover me ye pines,

Ye cedars with *innumerable* boughs

Hide me, where I may never see them more.

Id.

Faithful found

Among the faithless, faithful only he,

Among *innumerable* false, unmovev,

Unshaken, unseduced, unterrified,

His loyalty he kept, his love, his zeal. *Id.*

In lines, which appear of an equal length, one may be longer than the other by *innumerable* parts.

Locke.

I take the wood,

And in thick shelter of *innumerus* boughs,

Enjoy the comfort gentle sleep allows.

Pope's Odyssey.

INO, in fabulous history, a daughter of Cadmus and Harmonia, who nursed Bacchus. She married Athamas king of Thebes, after he had divorced Nephele, by whom he had two children Phryxus and Helle. Ino became mother of Melicerta and Learchus: and soon conceived an implacable hatred against the children of Nephele, because they were to ascend the throne in preference to her own. Phryxus and Helle, inform-

ed of Ino's machinations, escaped to Colchis on a ram with a golden fleece. Juno, jealous of Ino's prosperity, sent the fury Tisiphone to the house of Athamas; who so maddened him that, taking Ino to be a lioness and her children whelps, he pursued her and dashed her son Learclus against a wall. Ino, flying from his fury, threw herself from a high rock into the sea with Melicerta in her arms. Neptune pitied her fate, and made her a sea deity, afterwards called Leucothoe. Melicerta became also a sea god, worshipped by the name of Palemon.

INOA, festivals in memory of Ino, celebrated yearly with sports and sacrifices at Corinth, at Megara (where she was first worshipped), and in Laconia. It was usual at the celebration to throw cakes of flour into a pond, which, if they sunk, were presages of prosperity, but of adversity if they swam on the surface.

INOCARPUS, in botany: a genus of the monogynia order, and decandria class of plants. cor. funnel-shaped: cal. bifid: the stamens are placed in a double series; the fruit a monosperous plum. Species one only: *I. edulis* a native of the South Sea Islands and of Amboyna.

INOC'ULATE, *v. n. & v. a.* { Lat. *in* and *ocu-*
INOCU'LATION, *n. s.* *lus, inoculatio.*

INOC'ULATOR, *n. s.* To propagate any plant by inserting its bud into another stock; to practise inoculation: inoculation is practised upon all sorts of stone fruit, and upon oranges and jasmines. The practice of transplanting the small-pox, by infusion of the matter from ripened pustules into the veins of the uninfected, in hopes of procuring a milder sort than what frequently comes by infection.—Quincy. The communication of the cow-pock by inoculation is called vaccination: inoculator, one that practises inoculation of trees, or propagates small-pox or cow-pock by inoculation.

Virtue cannot so *inoculate* our old stock, but we shall relish of it. *Shakspeare. Hamlet.*

Nor are the ways alike in all
How to ingraft, how to *inoculate*. *May's Virgil.*

Thy stock is too much out of date,
For tender plants t' *inoculate*. *Cleaveland.*

Where lilies, in a lovely brown,
Inoculate carnation. *Id.*

In the stem of Elatiana they all met, and came to be ingrafted all upon one stock, most of them by *inoculation*. *Howel.*

But various are the ways to change the state,
To plant, to bud, to graft, to *inoculate*. *Dryden.*

Now is the season for the budding of the orange-tree: *inoculate* therefore at the commencement of this month. *Evelyn.*

Had John a Gaddesden been now living, he would have been at the head of the *inoculators*.

Friend's History of Physick.

It is evident, by *inoculation*, that the smallest quantity of the matter, mixed with the blood, produceth the disease. *Arbuthnot.*

INOCULATION, in gardening, is the art of inserting in the stocks of fruit trees, &c., the buds of others of the same kind. It is a sort of grafting often had recourse to in the summer season for raising particular kinds of stone fruit, and frequently succeeds better than the common method. See GRAFTING. The following are the direc-

tions for inoculating given by Miller:—Choose a smooth part of the stock; then with your knife make a horizontal cut across the rind of the stock, and from the middle of that cut make a slit downwards, about two inches in length, in the form of a T; but be careful not to cut too deep, lest you wound the stock: then having cut off the leaf from the bud, leaving the foot-stalk remaining, make a cross cut about half an inch below the eye, and with your knife slit off the bud, with part of the wood to it. This done, with your knife pull off that part of the wood which was taken with the bud, observing whether the eye of the bud be left to it or not; for all those buds which lose their eyes in stripping are good for nothing: then, raising the bark of the stock, thrust the bud therein, placing it smooth between the rind and the wood of the stock; and so having exactly fitted the bud to the stock tie them closely round, taking care not to bind round the eye of the bud. When the buds above mentioned have been inoculated three or four weeks, and those which are fresh and plump are joined, loosen the bandage, which, if it be not done in time, will injure if not destroy the bud. In March following cut off the stock sloping, about three inches above the bud, and to what is left fasten the shoot which proceeds from the bud: but this must continue no longer than one year; after which the stock must be cut off close above the bud. The time for inoculating is from the middle of June to the middle of August: but the most proper time is when the buds are formed at the extremity of the same year's shoot, which is a sign of their having finished their spring growth. The first sort commonly inoculated is the apricot; and the last the orange tree, which should never be done till the end of August. In doing this, always make choice of cloudy weather; for if it be done in the middle of the day, when the weather is hot, the shoots will perspire so fast, as to leave the buds destitute of moisture.

INOCULATION, in medicine, is a term generally applied to the practice of infusing the matter from ripened pustules in small-pox into uninfecced persons, in order to give that disease in a mild form, and thus to protect from the natural attacks. As to the origin of the art of inoculating the small-pox, as well as the time and place in which it was performed, they are equally unknown to all by whom the practice is adopted. Accident probably gave rise to it. Pylarini says, that among the Turks it was not attended to except among the meaner sort. No mention is made of it by any of the ancient Arabian medical writers that are known in Europe; and the physicians who are natives in and about Arabia assert, that nothing is to be found regarding it in any of those of a more modern date. Until the beginning of the eighteenth century all the accounts we have of inoculating the small-pox are merely traditional. It is also remarkable that before Pylarini's letter to the Royal Society in 1701, and for several years after, this practice was not taken notice of by the most inquisitive travellers. The first accounts we have concerning inoculation are from two Italian physicians, viz. Pylarini and Timoni; whose letters on the subject may be seen in the

Philosophical Transactions. The first is dated A. D. 1701; the next A. D. 1713. Dr. Williams of Haverfordwest, however, who wrote upon inoculation in 1725, proved, that it had been practised in Wales, though in form somewhat different, for upwards of 200 years. In the Highlands of Scotland, and some of the adjacent isles, Dr. Alexander Monro informs us, that the custom through ages past has been, to put their children to bed with those who labored under a favorable small-pox, and to tie worsted threads about their children's wrists, after having drawn them through variolous pustules. According to Dr. Russel, the Arabians assert, that the inoculation of the small-pox has been the common custom of their ancestors, and that they have no doubt of its being as ancient as the disease itself. In 1717 lady Mary Wortley Montague had her son inoculated at Constantinople, at the age of six years; he had but few pustules, and soon recovered. In April 1721 inoculation was successfully tried on seven condemned criminals in London. In 1721 Lady Mary Montague had a daughter of six years old inoculated in this island; soon after which the children of the royal family that had not had the small-pox were inoculated with success: then followed some of the nobility, and the practice soon prevailed.

The practice of inoculation having obtained in every part of the world, it may be grateful, at least to curiosity, to have a general account of the different modes that are and have been adopted in that practice. Inoculation with the blood of variolous patients has been tried without effect: the variolous matter alone produces the disease. The application of the variolous matter takes place in a sensible part only; the activity of the virus is such, that the smallest atom, though imperceptible to any of our senses, conveys the disease as well as the largest quantity. Hence the most obvious method is the prick of a needle or the point of a lancet dipped in the matter of a variolous pustule. Cotton or thread is used, that is previously rubbed with powdered variolous scabs; this thread is drawn with a needle through the cutis, but not left in. This is the method in some parts of the East Indies. The Indians pass the thread on the outside of the hand, between any of the fingers, or between the fore-finger and thumb. The Thessalian women inoculate in the forehead and chin. Some abrade the scarf-skin, and rub in the powdered dry scabs which fall from the pustules of patients with the small-pox. Many of the Greek women make an oblique puncture with a needle, on the middle of the top of the forehead, on each cheek, the chin, each metacarpus, and each metatarsus; then drop in each a little of the pus just taken warm from a patient, and brought in a servant's bosom. Others make several little wounds with a needle in one, two, or more places in the skin, till some drops of blood ensue; then the operator pours a drop of warm pus fresh from a pustule, and mixes it with the blood as it issues out; then the wound is covered by some with a bandage, by others with half a walnut shell placed with its concave side over each orifice. In some parts of Hindostan the person who intends to be inoculated, having found a house where there is a good

sort of the small-pox, goes to the bed of the sick person, if he is old enough; or if a child to one of his relations, and speaks to him as follows: 'I am come to buy the small-pox.' The answer is, 'Buy if you please.' A sum of money is accordingly given, and one, three, or five pustules, for the number must always be odd, and not exceeding five, are extracted whole, and full of matter. These are immediately rubbed on the skin of the outside of the hand between the forefinger and the thumb; and this suffices to produce the disease. The same custom obtains in Algiers, Tunis, Tripoli, and other countries. Very similar to this custom is that in Arabia, where on some fleshy part they make several punctures with a needle imbrued in variolous matter, taken from pustules of a favorable kind. Here they buy the small-pox too, as follows: the child to be inoculated carries a few raisins, dates, sugar-plums, or such like: and, showing to the child from whom the matter is to be taken, asks how many poxes he will give in exchange! The bargain being made, they proceed to the operation. The Arabs say that any fleshy part is proper; but generally they insert the matter between the fore-finger and thumb on the outside of the hand. The Georgians insert the matter on the fore-arm. The Armenians introduce the matter on the two thighs. In Wales the practice may be termed infliction of the small-pox. There some of the dry pustules are procured by purchase, and are rubbed hard upon the naked arm or leg. The practice in some places is to prick the skin between some of the fingers, by means of two small needles joined to one another; and, after having rubbed a little of the matter on the spot, a circle is made by means of several punctures of the bigness of a common pustule, and matter is again rubbed over it. The operation is finished by dressing the wound with lint. Incisions have been made in the arms and legs, and thread, cotton, or lint, previously dipped in the variolous matter, was lodged in them. The practice of some is to bathe the feet in warm water, and then smear lint dipped in the variolous matter on the instep, or other part of the foot where the skin is thin. Others apply a small blistering plaster; and, when the scarf-skin is elevated and slipped off, the variolous matter is applied to the surface of the true skin, and confined there by a little lint or plaster. Scratching the skin with a pin or needle, and then rubbing the part with lint, previously dipped in variolous matter, is the custom in some places. The Highlanders rub some part of the skin with fresh matter, or dip worsted in variolous matter, and tie about the children's wrists. They observe, that if fresh matter is applied a few days successively, the infection is more certain than by one application. Having thus given a brief history of the practice, we must refer the medical reader to the articles MEDICINE and SMALL-POX, where the comparative merits of inoculation will be brought forward in a more detailed manner.

INOCULATION, VACCINE. See VACCINATION and SMALL-POX.

INO'DORATE, adj. } Lat. *in* and *odor*.

INO'DOROUS, adj. } Having no scent; not perceptible by the nose.

Whites are more *inodorous* than flowers of the same kind coloured. *Bacon's Natural History.*

The white of an egg is a viscous, unactive, insipid, *inodorous* liquor. *Arbuthnot on Aliments.*

INOFFENSIVE, adj. Lat. *in* and *offensus*.
INOFFENSIVELY, adv. } Giving no scandal,
INOFFENSIVENESS, n. s. uneasiness, or displeasure; harmless; innocent; unembarrassed: in a manner free from injury; without stop or obstruction.

Whether the sun predominant in heaven
Rise on the earth, or earth rise on the sun ;
He from the East his flaming road begin,
Or she from West her silent course advance
With *inoffensive* pace that spinning sleeps
On her soft axle. *Milton. Paradise Lost.*

From hence a passage broad,
Smooth, easy, *inoffensive*, down to hell. *Milton.*

For drink the grape
She crushes, *inoffensive* most. *Id.*
With whatever gall thou set'st thyself to write,
Thy *inoffensive* satires never bite. *Dryden.*
Should infants have taken offence at any thing,
mixing pleasant and agreeable appearances with it,
must be used, 'till it be grown *inoffensive* to them. *Locke.*

Hark, how the cannon, *inoffensive* now,
Gives signs of gratulation. *Phillips.*
A stranger, *inoffensive*, unprovoking. *Fleetwood.*

However *inoffensive* we may be in other parts of our conduct, if we are found wanting in this trial of our love, we shall be disowned by God as traitors. *Rogers.*

To gratify an ambitious profligate, *inoffensive* nations are invaded, enslaved, or exterminated. *Beattie.*

INOFFICIOUS, adj. Lat. *in* and *officium*. Not civil; not attentive to the accommodation of others.

INOPINATE, adj. Fr. *inopiné*; Lat. *inopinatus*. Not expected.

INOPPORTUNE', adj. Lat. *inopportunus*. Unseasonable; inconvenient.

INORDINACY, n. s. Lat. *in* and *ordinatus*.
INORDINATE, adj. Irregularity; disorder.

INORDINATELY, adv. (it is better to) use inordination,

INORDINATENESS, n. s. use inordination, which is a deviation from right or order): inordinate, irregular; intemperate; beyond prescribed limits.

These people were wisely brought to allegiance; but, being straight left unto their own *inordinate* life, they forgot what before they were taught. *Spenser.*

As soon as a man desires any thing *inordinately*, he is presently disquieted in himself. *Taylor.*

From *inordinate* love and vain fear comes all unquietness of spirit. *Id. Guide to Devotion.*

Thence raise

At last distempered, discontented thoughts;
Vain hopes, vain arms, *inordinate* desires,
Blown up with high conceits, engendering pride. *Milton.*

Reason in man obscured, or not obeyed,
Immediately *inordinate* desires
And upstart passions catch the government
From reason, and to servitude reduce
Man till then free. *Id. Paradise Lost.*
Schoolmen and casuists, having too much philosophy to clear a lye from that intrinsick *inordination* and deviation from right reason, inherent in the na-

ture of it, held that a lye was absolutely and universally sinful. *South.*

They become very sinful by the excess, which were not so in their nature: that *inordinacy* sets them in opposition to God's designation.

Government of the Tongue.

INORGANICAL, adj. In and organical. Void of organs or instrumental parts.

We come to the lowest and most *inorganical* parts of matter. *Locke.*

INOSARCION, a name given by some of the ancient Greek and Roman authors to a peculiar species of emerald, called also the Chalcedonian emerald. The great distinction of this from the other species of this gem was, that it had thick veins in it, which gave peculiar refractions and reflections to the light; and, though the stone was in itself green, yet when viewed in side lights these veins gave the stones all the various colors of the rainbow.

INOS'CULATE, v. n. } Lat. *in* and *osculum*.

INOSCULATION, n. s. } To unite by conjunction of extremities.

The almost infinite ramifications and *inosculations* of all the several sorts of vessels may easily be detected by glasses. *Ray.*

This fifth conjugation of nerves is branched by *inosculating* with nerves. *Derham's Physico-Theology.*

IN'QUEST, n. s. Fr. *enqueste*; Lat. *inquiry*. Judicial enquiry or examination; inquiry; search; study. In law, the *inquest* of jurors, or by jury, is the most usual trial of all causes, both civil and criminal; for in civil causes, after proof is made on either side, so much as each part thinks good for himself, if the doubt be in the fact, it is referred to the discretion of twelve indifferent men, impanelled by the sheriff; and as they bring in their verdict so judgment passes: for the judge saith the jury finds the facts thus; then is the law thus, and so we judge.—*Cowell.*

This is the laborious and vexatious *inquest* that the soul must make after science. *South.*

What confusion of face shall we be under, when that grand *inquest* begins; when an account of our opportunities of doing good, and a particular of our use or misuse of them, is given in? *Attbury.*

INQUEST. See CORONER.

INQUIETUDE, n. s. Fr. *inquietude*; Lat. *inquietudo, inquietus*. Disturbed state; want of quiet; attack on the quiet.

Having had such experience of his fidelity and observance abroad, he found himself engaged in honour to support him at home from any farther *inquietude*. *Wotton.*

Iron, that has stood long in a window, being thence taken, and by a cork balanced in water, where it may have a free mobility, will bewray a kind of *inquietude* and discontentment till it attain the former position. *Id.*

The youthful hero, with returning light,
Rose anxious from the' *inquietudes* of night.

Pope.

IN'QUINATE, v. a. } Latin *inquino*. To
INQUINATION, n. s. } pollute or corrupt.

Their causes and axioms are so full of imagination, and so infected with the old received theories, as they are mere *inquinations* of experience, and concoct it not. *Bacon.*

The middle action, which produceth such imperfet bodies, is fitly called by some of the ancients *inquisition*, or inconcoction, which is a kind of putrefaction.

Id.

An old opinion it was, that the ibis feeding upon serpents, that venomous food so *iniquitated* their oval conceptions, that they sometimes came forth in serpentine shapes.

Browne.

INQUIRE', v. n. & v. a. Fr. *enquirer*; Lat. *inquiero, inquisitio*.
INQUI'RABLE, adj. To ask about; to seek out; to call by name: inquirer, one who interrogates or makes search: inquiry, an interrogation; a search by question: inquisition, a judicial inquiry; examination or discussion: in law, a manner of proceeding in criminal matters; the court established in some countries subject to the pope for the detection of heresy: inquisitive, curious; busy; active to pry into any thing: inquisitor, one who examines judicially; an officer in the popish court of inquisition. Inquire is used with other words and has several meanings.

To ask questions; to make search; to exert curiosity on any occasion: with *of* before the person asked.

You have oft heard *inquired*.

After the shepherd that complained of love.

Shakspeare.

We will call the damsel and *inquire* at her mouth.

Genesis

Herod *inquired* of them diligently.

Matthew.

They began to *inquire* among themselves, which of them it was that should do this thing.

Luke xxii. 23.

He sent Hadoram to king David, to *inquire* of his welfare.

1 Chron. xviii. 10.

It is a subject of a very noble *inquiry*, to *inquire* of the more subtle perceptions; for it is another key to open nature, as well as the house.

Bacon.

It is used with *into* when something is already imperfectly known.

The step-dame poison for the son prepares,
The son *inquires* into his father's years.

Dryden.

It may deserve our best skill to *inquire* into those rules, by which we may guide our judgment.

South.

Sometimes with *of*.

Under their grateful shade Aeneas sat;
His left young Pallas kept, fixed to his side,
And oft of winds *inquired*, and of the tide.

Dryden's Aeneid.

With *after* when something is lost or missing; in which case *for* is likewise used.

Inquire for one Saul of Tarsus.

Acts ix. 11.

They are more in danger to go out of the way, who are marching under a guide that will mislead them, than he that is likelier to be prevailed on to *inquire after* the right way.

Locke.

With *about* when fuller intelligence is desired.

To those who *inquired* about me, my lover would answer, that I was an old dependent upon his family.

Swift.

To make examination.

Awful Rhadamanthus rules the state;
He hears and judges each committed crime,
Inquires into the manner, place, and time.

Dryden.

When *inquisition* was made of the matter, it was found out.

Esth. ii. 23.

When he maketh *inquisition* for blood, he remembereth them: he forgetteth not the cry of the humble.

Psalm ix. 12.

The men which were sent from Cornelius had made *inquiry* for Simon's house, and stood before the gate.

Acts.

An husband shuld not been *inquisitif*.

Chaucer, Prologue to the Miller's Tale.

Ne any then shall after it *inquire*

Ne any mention shall thereof remaine,

But what this verse, that never shall expire,

Shall to you purchase with her thankless pain.

Spenser, Sonnet.

Canute had his portion from the rest,
The which he called Canutium, for his hire,

Now Cantium, which Kent we commonly *inquire*.

Spenser.

My boy at eighteen years became *inquisitive*

After his brother. Shakespeare, Comedy of Errors.

With much severity and strict *inquisition*, were punished the adherents and leaders of the late rebels.

Bacon's Henry VII.

In these particulars I have played myself the *inquisitor*, and find nothing contrary to religion or manners, but rather medicinable.

Id. Essays.

We were willing to make a pattern or precedent of an exact *inquisition*.

Id. Natural History.

This idleness, together with fear of imminent mischiefs, have been the cause that the Irish were ever the most *inquisitive* people after news of any nation in the world.

Davies.

Though it may be impossible to recollect every failing, yet you are so far to exercise an *inquisition* upon yourself, as, by observing lesser particulars, you may the better discover what the corruption of your nature sways you to.

Taylor.

What's good doth open to the *inquirers* stand,
And itself offers to the accepting hand.

Denham.

What satisfaction may be obtained from those violent disputers and eager *inquirers* into what day of the month the world began?

Browne's Vulgar Errors.

Though he thought *Inquisitiveness* an uncomely guest, he could not but ask who she was.

Sidney.

His old shaking sire,

Inquisitive of tights, still longs in vain
To find him in the number of the slain.

Dryden.

Then what the Gallick arms will do,
Art anxiously *inquisitive* to know.

Id.

Minos, the strict *inquisitor* appears,
And lives and crimes with his assessors hears.

Id.

This is a question only of *inquirers*, not disputers, who neither affirm nor deny, but examine.

Locke.

This exactness is absolutely necessary in *inquiries* after philosophical knowledge, and in controversies about truth.

Id.

Curiosity in children nature has provided, to remove that ignorance they were born with; which, without this busy *inquisitiveness*, will make them dull.

Id.

A Dutch ambassador, entertaining the king of Siam with the particularities of Holland, which he was *inquisitive* after, told him that the water would, in cold weather, be so hard that men walked upon it.

Id.

Judgment or opinion, in a remoter sense, may be

called invention : as when a judge or a physician makes an exact *ing-dry* into any cause. *Grew.*

Providence, delivering great conclusions to us, designed to excite our curiosity and *inquisitiveness* after the methods by which things were brought to pass. *Burnet.*

It can be no duty to write his heart upon his forehead, and to give all the *inquisitive* and malicious world a survey of those thoughts which it is the prerogative of God only to know. *South.*

Heights that scorn our prospect, and depths in which reason will never touch the bottom, yet surely the pleasure arising from thence is great and noble ; for as much as they afford perpetual matter to the *inquisitiveness* of human reason, and so are large enough for it to take its full scope and range in. *Id. S^rmons.*

They cannot bear with the impertinent questions of a young *inquisitive* and sprightly genius. *Watts on the Mind.*

The whole neighbourhood grew *inquisitive* after my name and character. *Addison's Spectator.*

When, strict *inquiring* from herself he found
She was the same, the daughter of his friend,
Of bountiful Aeasto ; who can speak

The mingled passions that surprised his heart,
And through his veins in shivering transport ran ?

Thomson's Autumn.

But if there is any writer whose genius can embellish impropriety, and whose authority can make error venerable, his works are the proper objects of critical *inquisition*. *Johnson's Rambler.*

The Inquisition, called also, by a shocking misnomer, the Holy Office, is an ecclesiastical tribunal which has been established in modern times in several catholic countries and their dependencies, for the discovery and punishment of heretics and infidels, i. e. of all persons supposed to entertain opinions contrary to the decisions of the church of Rome.

The rise of this cruel institution is to be traced to those times when persecution was general throughout the civilised world. Some writers date its origin as early as the council of Verona, which was held in 1184, and in which pope Lucius commissioned the bishops to obtain all possible information of persons suspected of heresy, &c., and described similar degrees of this crime to those which the Holy Office afterwards acted upon. But it is more commonly dated from a persecution of the Waldenses in the beginning of the thirteenth century.

At this period (in 1203) Innocent III. had commissioned Peter de Castelnau, and Ralph, monks of the order of Citeaux, and of the monastery of Fortroide, in Narbonnese Gaul, to preach against the heresies of that sect, and he shortly after named three pontifical legates ; empowering them to call on the French king Philip II. and all princes and nobles to prosecute and banish heretics wherever they were found. Among other ecclesiastical associates whom they selected was Dominic de Guzman, a canon of the order of St. Augustine ; ‘a man,’ says a Spanish writer, ‘to whom we owe two most important blessings, the rosary and the holy office.’

But the Catholic bishops were from the first jealous of this mission, and several of the great feudal chiefs of Provence and Narbonne refused to obey the orders of the legates. Among the most refractory and most powerful of the latter

was Raymond VI. count of Toulouse, and in his dominions Peter de Castelnau was assassinated, as it is said, by the Albigenses, and beatified in 1208. The able and aspiring pontiff now called on all the neighbouring powers to assist him in pouring forth the vengeance of the church ; and to march into the heretical district. All obstinate heretics were placed at the disposal of Simon de Montfort, commander of this crusade : the whole race of the Waldenses and Albigenses were ordered to be pursued with fire and sword ; neither sex, age, nor condition was spared ; the country became a wilderness, and the towns heaps of smoking ruins. Pardon and remission of sins were promised by the papal bull ‘to all those who would take up arms to revenge the said murder ; and since we are not to keep faith with those who do not keep it with God,’ it added, ‘we would have all to understand that every person who is bound to the said earl Raymond, by oath of allegiance or by any other way, is absolved by apostolical authority from such obligations, and it is lawful for any Roman Catholic to persecute the said earl and to seize upon his country, &c.’ ‘We exhort you,’ continued this famous bull, ‘to destroy the wicked heresy of the Albigenses, and to do this with more rigor than you would use towards the Saracens themselves : persecute them with a strong hand.’ The agents employed were worthy of their vigorous sovereign head, the pontiff. ‘Spare none,’ said the abbot of Citeaux to those who required a mark to distinguish the Catholic from the heretic. ‘Spare none ; God will be able to distinguish his own among the slain.’

Such was the era of the inquisition, and the objects in aid of which it was first established. Dominic was constituted the first inquisitor-general. Innocent III. had scarcely given this institution a formal existence before he was summoned to a higher tribunal. Dominic in fact had only proceeded to Thoulouse to decide upon the religious order which he would wish to associate with himself in the institution, when the pope died 16th of July 1216 : his choice of the Augustines was approved by Honorius on the 22nd of December of that year.

The emperor Frederic II. gave the constitution of the society the form of civil law at his coronation : and, in 1224, the inquisitors were busy at Padua ; but in Narbonne they had not succeeded to the expectation of the pope ; and Louis VIII. put himself at the head of an army against the Albigenses to expedite this holy work.

Gregory IX. gave the institution its final form ; and in 1233 it was fully established in France by St. Louis, and in the four Christian kingdoms of Spain.

The council held at Thoulouse, in the year 1229, by Romanus, cardinal of St. Angelo, and pope’s legate, had already erected in every city a council of inquisitors, consisting of one priest and three laymen.

The operations of a tribunal conducted by such men, and meeting with no effective opposition, were too rapid to last long. The inquisition became useless at Thoulouse for want of heretics to condemn. In its infant essay it had strangled the serpents that surrounded its cradle ;

but the hydra of heresy (as the Romanists delight to call it) was growing up for its maturer labors. Its laws, rules, and devices, were laid up therefore as a part of the papal artillery. Pope Innocent IV. supported it as a favorite ally, and established permanent tribunals, on the plan of that of Thoulouse, over almost the whole of Italy except Naples, where it never gained admittance. It was early imported into the Spanish kingdom of Arragon, bordering on the province where it originated. Wherever the inquisitors were sent they created an alarm like that of an invading army; and, notwithstanding the bigotry and prostrate submission of the age, the cruelty, insulting arrogance, and intolerable oppression of these ghostly fathers, excited insurrection and tumult in almost every town which they garrisoned for the faith. The bishops, who saw in these establishments the ruin of their authority in matters of doctrine, remonstrated against their usurpation; and the princes, who claimed the privilege of burning their own heretics, saw with pain an encroachment on their prerogative by the troops of the holy see. The spirit of Christendom was however pretty well subdued for two centuries; and the inquisition had not much on their hands, from the extirpation of the Albigenses to the dawn of the Reformation and the persecution of the Moors and Jews in Spain.

Their Catholic majesties, Ferdinand and Isabella, now resolved that they would have none but Catholics in their dominions, and that it was necessary, for the glory of God and the prosperity of their reign, to make all their Jewish and Moorish subjects hypocrites, exiles, or martyrs. The respect paid by the queen to the counsels of Torquemada, makes us almost forget the assistance she lent to Columbus: yet on the whole she was certainly unwilling to be his instrument. It was easy by a perfidious and savage edict to drive these unhappy people into the church; but it was not so easy to drive them out of their prejudices and habits. To save their lives, their fortunes, and their families, they made an open profession of a religion which, disgraced and falsified as it was by its ministers, they abhorred; but in secret they cherished their own faith, and practised their own rites. The mass, the cross, and the image, were the objects of their public veneration, but the stolen devotions of the mosque and the synagogue had their hearts and affections. The Moor with his face towards Mecca pronounced the Ave Maria; and the Jew, while he fasted in Lent, was consoled by the consideration that it gave him an interval in which at least he was exempt from attesting his sincerity by devouring pork. It was necessary therefore to establish the inquisition, in order to take cognizance of these dangerous and daring apostates, in those parts of Spain where it did not before exist, and to inspire it with new activity and energy in those provinces whose faith was to be for ever under its protection.

Torquemada, a Dominican friar, and a fit successor of the preaching and persecuting founder of the order, confessor to the queen, the man by whose advice this measure was undertaken, obtained a bull from Sixtus IV., in the year 1483, appointing him inquisitor-general of

all Spain, and confirming the extension of the inquisition to Castile, where it had been established three years before. The inquisitorial regulations still in force are principally those approved of by Torquemada, and a council of his nomination. Sixteen tribunals of the faith were established in the different provinces of Spain, subject to a supreme council at Madrid, in which the inquisitor-general presided; and to these tribunals, beside the regular officers necessary to conduct their processes, were attached, as appeared in subsequent reign, more than 20,000 constables or familiars, who, as a religious police, watched over the conduct, opinions, and expressions of all ranks of the people, and, together with numerous swarms of monks, priests, and confessors, acted as arms or feelers to these dreadful associations of intolerance. As the headstrong enthusiasm, the callous heart, required in an inquisition, are most consistent with a narrow capacity and limited information, so the grossest ignorance and most absurd fatuity appeared in the cruel and arbitrary proceedings of these ghostly fathers; the opinions and sentiments of mankind were regulated by judges who could form no opinions of their own; and many an orthodox believer suffered torture and death as the penalty of not being understood. The dungeons were soon filled with heretics, who after conversion had apostatised to Moses or Mahomet. Every one was commanded, under the penalty of excommunication, to confess his own errors, or to denounce those of others. No connexions of blood, kindred, or friendship, were allowed to stand in the way of the sacred work; and the merit of the impeachment was measured by the strength of those ties of nature which were broken for its sake. None who displeased the supporters of superstition could escape detection; none who were detected could elude imprisonment; and few who were imprisoned could escape torture or the flames.

The first essay of the inquisition at Seville showed with what a 'fell swoop' it could act. In the first six months 300 persons, accused of Judaizing after conversion, were burnt, together with the bones and images of many whom death had happily rescued from its dominion. In the space of about forty years from its establishment in Seville there had been burned in that diocese more than 4000 individuals; 5000 houses remained shut as after a pestilence, and consequently so many families had been exterminated: and 100,000 were condemned to wear the sanbenito, or banished, in the single province of Andalusia. 'I do not wish,' says the chaplain of the inquisitor-general of that time, 'to write any thing more concerning the mischiefs of this heretical gravity; suffice it to say that since the fire is kindled it shall burn till no more wood can be found, and that it will be necessary for it to blaze till those who have Judaized are spent and dead, and not one remains.' To such an extent did the exterminating spirit against the descendants of Abraham proceed, that it was a common saying with Lacero (inquisitor of Cordova soon after the establishment of the tribunal in that city), Da me un Judeo, darte lo he quemado; hand me a Jew, and I will return him to

you burnt to ashes. Many of this miserable people were condemned to the flames for frequenting the synagogues in borrowed shapes, and being carried to their nightly assemblies by the devil in the form of a he-goat. Witnesses were found to prove, to the satisfaction of the inquisitor, this miraculous mode of Judaizing, and to swear that they themselves were present at the ceremonies. The various tribunals were extremely active, each of them celebrating an auto once or oftener in the year. Extreme youth and hoary age; those who were too old to change their opinions, and those who were too young to form any; were seen burning in the same fire: poverty was defenceless, and riches invited plunder. In one day at Toledo sixty-seven females were delivered over to the flames, for relapsing into Jewish practices after conversion; and this was only one of two autos that had been celebrated in the same month. Those that entered the church were liable to be burnt; and the contumacious were plundered and banished.

Thus did the furious zeal of the first inquisitor-general of Spain, operating upon the bigotry or terror of two Catholic princes, extirpate or ruin nearly 1,000,000 of their most wealthy, industrious, and enterprising subjects, who, notwithstanding the oppressions under which they labored, and the popular rage to which they were occasionally exposed, multiplied in Spain as in a second land of Egypt, and almost regarded it as a new Palestine. With this idea they looked upon their expulsion as a calamity similar to the dispersion of their tribes, or the final extinction of their political existence. The price which their fathers had paid for the blood of the Saviour, about fifteen centuries before, was now made a reason why no ransom should be received for their own. Torquemada, with the genuine inspiration of fanaticism, rushed into the royal presence, when the queen was deliberating on an offer of money made by the Jews for liberty of conscience, with a crucifix in his hand, and broke off the intended compromise for toleration or protection, by exclaiming, ‘Behold the crucified Redeemer, who was sold formerly to the Jews for thirty pieces of silver by Judas; sell him not again to his enemies for gold or silver like that traitor, or remember the traitor’s reward. I shall be no party to the impious bargain; I abdicate my office.’ This appeal was successful; the proffered donation was refused; the edict of banishment was confirmed on a whole people; excommunication was denounced against those who should either harbour them, or supply them with the least particle of subsistence, after the period assigned for their expatriation; and the remnant of this miserable race, whose conscience would not allow them to adopt the religion of their persecutors, or who saw no safety within the pale of a church where the prison and the rack were placed below the altar, and where a new Christian had always before him the half-kindled faggots prepared for a heretic, were driven from the place of their birth and early recollections; were stripped, plundered, and tormented with impunity; were reduced to slavery, chased into

solitudes, or pursued over the country. Directing their course into all the surrounding states, many of them were received in Portugal, France, and Italy; many crowded the sea-ports and frontiers of the kingdom, and, having taken shipping for Africa, Naples, or the Levant, perished by storms, pirates, or barbarians; and many of them, after experiencing every extremity of misfortune, were obliged to return to their native land, and to receive the waters of baptism from the overflowing cup of their misery. Those who fled into Portugal found intolerance and fanaticism there before them; and soon after their arrival saw the holy office established under the direction of more uncontrolled power, and a fiercer spirit of persecution, if possible, than in the country they had been obliged to relinquish.

The disciples of Mahomet could expect no better treatment than the adherents of Moses. Decrees of expulsion or conversion accordingly issued against them from the same counsels, and the holy office prepared its prisons for the relapsed and apostate. Not fewer than a million and a half of Moors were driven from Spain, from the conquest of Granada to their final banishment under Philip III., besides those destroyed in wars, massacres, and assassinations, tortured to death by the inquisitors, or delivered over to the hands of the executioner.

Nothing can be conceived more absurdly horrible than the treatment of these miserable men. If they adhered to the faith of their fathers they were robbed, plundered, and exiled as infidels; if they renounced it, and became Christians, they were suspected as hypocrites and punished as heretics. Compelled to enter the church, to escape persecution, they found, when in the church, that their compulsory entrance was made an argument of their apostasy; forced to violate their conscience, by denying a religion which they cherished, they experienced only the penalties of that which they embraced; and, deprived of the glory of martyrdom for the one, they enjoyed none of the security expected in the other. By their conversion they were brought within the reach of the inquisitorial fires; and their baptism was like heathen libations poured on the head of the victim preparatory to the sacrifice.

When carried to the prisons of the holy office, it was equally vain for them to deny or to confess the crimes with which they were charged by bigotry, avarice, or malevolence; if they denied, they were burnt as impenitent; if they confessed, they were burnt as relapsed. Torture was applied to force a declaration of what the inquisitor desired, and again inflicted to learn with what intention the acknowledged act was performed. Whatever became of the person of the heretic, whether condemned to capital punishment, or perpetual imprisonment, whether he came out with the penitential robe or to the stake, his property remained in the treasury of the inquisition; he brought forth with him none of his rights. Fidelity to their new profession, and even zeal in confirming or extending it, never ensured protection or commanded confidence, the character of a new Christian, being

marked with an indecible stain of infamy, exclusion from all offices, distinctions, or dignities; and this character was applied to all who were themselves converted from infidelity, or were descended from parents who had been such at any known period, however remote. No baptismal font could wash out such a disgrace. No antiquity of date could change the appellation: the Jewish blood was sufficient to taint the Christian profession; St. Paul himself, with the title of a new Christian, would have found his preaching vain. There have been instances where a man's pedigree has been traced back eight or nine generations, through all its collateral branches, for the purpose of ascertaining his genealogical guilt. The orthodoxy of his creed was to be estimated like that of an old coin, not by the purity of the metal, but the age of the inscription. While Jewish and Moorish extraction exposed to suspicion, and gave credibility to the slightest proofs of apostasy, it was scarcely possible that these unhappy people, with all their old national prejudices and habits, had they been real converts, should not furnish to the vigilant eye of an enemy, a rival, or an inquisitorial devotee, sufficient grounds for denunciation. The edict of faith was published in every diocese of Spain once every year, whereby the duty of accusing heretics, or those suspected of heresy, was enforced under the most awful sanctions; three years' indulgence was offered to those who should become informers or accusers; and excommunication was thundered against all who should conceal the acts or sayings of a heretic, schismatic, or infidel. The circumstances which all good Catholics were required at this annual visitation to disclose, as indications of heretical gravity, were sufficiently minute and particular to allow little chance of escape to disguised Israelites, or renegade Saracens. 'We, the inquisitors of heretical gravity, command all to whom this edict shall be made known, to speak and manifest to us if you know, understand, or have seen, or previously found out, that any living man or woman, present or absent, or already dead, had made, published, said or spoken, any or more opinions or words, heretical, suspected, erroneous, rash, ill-sounding, savouring of scandal, or any heretical blasphemy against God, his Catholic faith, and against that which our holy mother the Church of Rome embraces, teaches, preaches, and holds.' Then follows an enumeration of the heresies of the different enemies of the Catholic faith, and an injunction to declare and denounce them. Among these, as symptoms of Jewish apostasy, the faithful are enjoined to make known to the holy office the cases of any individuals of the Hebrew race who shall be detected 'in wearing a clean shirt, in using a clean table-cloth, or putting on clean sheets on the Sabbath; or who, in honor of that day, shall use handsomer or holiday clothes, who shall steep their meat in water to suck and draw out the blood, who shall sing the psalms of David without the Gloria Patri, who shall eat lettuce or parsley during the time of the paschal,' or be guilty of similar offences against the faith. The Saracens are to be denounced as suspected of Mahom-

median abominations, if they abstain from drinking wine or eating swine's flesh, if they bathe at particular times, if they sing Arabian songs at their marriages, or play upon their native musical instruments. Abstinence from pork is not advanced in the edict as a charge of heresy against the Jews, though it is against the Moors, probably from a recollection of the peculiar difficulty that the ancestors of this people felt in swallowing this article of faith, when in a written engagement to be good Catholics, under the sanction of the most solemn oaths, and after a complete enumeration of the points they were required to abjure or embrace, they swore, 'by the Father, Son, and Holy Spirit, who is one in Trinity, and the true God, that whosoever of us shall be found a transgressor of all or any one of these things, he shall perish with flames or stones;' but 'as to swine's flesh we promise to observe, if we cannot eat it possibly through custom, yet we will without contempt or horror take and eat things that are dressed with it.'

In other countries, however, and even in Spain itself, the inquisition which was established for the extirpation of two hated tribes, had soon to contend with more formidable heresies. The new opinions and principles of the Reformation, beginning in Germany, spread from state to state, as by the blaze of signal posts, and every where appeared the beacons of war against ecclesiastical corruptions and abuses. Mankind looked about with amazement and indignation at the gulf of clerical oppression into which they had been plunged, and at the emblems of craft, deceit, and cruelty, with which they were surrounded. The Reformation spread into Spain, which, although it had been for ages the strong hold of superstition, contained at that time the most active and enterprising people of Europe; but the dangerous light was received and buried in the dungeons of the inquisition, and, before it had enlightened any considerable portion of the nation, expired like a lamp in a sepulchre.

Charles V., after having fought against the protestants in Germany, and endeavoured, without success, to establish the inquisition against them in the Netherlands, employed preachers and zealous Catholics to convert those in whom his arms could not work conviction; but his apostles themselves returned infected with the contagion they were commissioned to eradicate. Among those who had imbibed the reformed doctrines were men of great learning and in eminent situations. Cazalla the emperor's preacher, Constantine Ponce Fuente, canon of the cathedral of Seville, and the emperor's chaplain, don Juan Ponce de Leon, son of the count of Baylen, and several others. Heresy, to use an illustration of a Spanish author, was spreading like the yellow fever, when its progress was arrested by the holy office. Seville and Valladolid, the former the most commercial city of the Spanish monarchy and the latter the capital of Castile, were the places where it broke out, and where in the course of two years it was entirely suppressed. In Seville 300 persons were apprehended, imprisoned, and laid up for tortures or autos-de-fe in the year 1537. Many of them were burnt in successive executions of fifteen or

twenty at a time. The most cruel tortures were applied for the purpose of forcing them to confess their associates, their connexions, their friends, their favorers, the nature of their books, their instructors, and the whole ramifications of that heretical conspiracy which the tribunal was determined to destroy, root and branch. By the extreme agony on the rack, Mary Bohorquia, a young lady of noble birth, who was burnt for being a Latherian, was driven to confess that she had conversed on religious subjects with her sister Dona Juana Ponce de Leon, wife of lord de la Heguera. This latter was immediately apprehended, confined in a loathsome dungeon though far gone in her pregnancy, and a few days after her delivery tortured with such diabolical rigor, that the ropes cut into the very bones of her arms, legs, and thighs. She died after this inhuman treatment, when the fiends who inflicted it, in order to make her atonement, or rather to deprive the reformation of the glory of such a martyr, pronounced her innocent of heresy. In May, 1559, an auto was celebrated at Valladolid which was attended by the regent of Spain (in the absence of Philip), prince Charles, and all the dignitaries and authorities of the state, when thirty persons were brought forth, fourteen of whom were committed to the flames. At the entrance of Philip into his capital, and into the active government of his kingdom in October of the same year, he was regaled by another sacrifice more splendid and imposing than the last, from the number of the victims (which amounted to forty, twenty of whom were burnt), from the greater attendance of guards, courtiers, grandees, and authorities, and from the more extensive and gorgeous display of inquisitorial pageantry. A protestant nobleman, don Carlos de Sessa, when passing to the stake, cried out to the king for mercy: ‘No,’ answered the bigot, with a stern countenance, ‘I would bring wood to burn my own son were he such a wretch as you!’ and continued to view the horrific ceremony with the greatest coolness. As part of the forms of this terrible day, the inquisitor-general demanded of the monarch the continuance of his protection to the tribunal, repeating the blasphemous words, Domine, adjuva nos, and the king, standing and grasping his sword, half unsheathed it, in token of his zealous compliance.

Among other miseries which the new world experienced from its discoverers and conquerors, it was not to be exempted from this execrable scourge. Philip II. introduced it into his Western dominions in 1571; and such is the blindness of superstition, that the human sacrifices of the Mexicans, which excited such horror in Cortes and his troops, were imitated by the pretended ministers of Christ. One bleeding limb of the monarchy still shook it off with convulsive violence, and rather bore to be severed from the trunk than to endure it. The people of the Netherlands, where heresy was stronger and authority weaker than in Spain, resisted its introduction; and the result of the struggle is well known. By a master stroke of flagitious policy, Philip extinguished the reformation in Spain, but the infatuation of his zeal

extended it in the north. In the one case his great engine, the holy office, had been established for more than half a century; in the provinces it had not been able to gain a footing. When representations were made to him of the zeal and numbers of the protestants, he sent against them, as he would have done at home, a reinforcement of priests and ecclesiastics. Hearing that heresies had increased by the cruelties employed for their suppression, he ordered the prisons to be increased in proportion, more fires to be lighted, and more scaffolds to be erected. Informed by his sister that she could no longer govern on the maxims of massacre and extermination, he sent the furies and the duke of Alba. When the casuistical bigots who surrounded the throne, the turba minor diri capit, began to doubt the success of their cruelty, the monarch fell down before the cross in a frenzy of fanaticism, and swore on that emblem of mercy an oath of blood and extermination against all but Catholics. The sanction of this tremendous oath survived to his successors, who seem to have taken his character as their model. The inquisition appears to have communicated to them all, whether of the family of Austria or of Bourbon, certain repulsive features of resemblance. Established in an age of persecution and despotism, it, for centuries, defied all moral and political changes, creating its own atmosphere, assimilating all things in its neighbourhood, bending every thing to its dominating genius, and, by the fascination of its fiery aspect, disarming its prey of all power of resistance.

Such has been the wretched lot of Spain. Nowhere has religious intolerance risen so high in human esteem. In Spain it has placed cruelty among the virtues. In no country of the world have people been so plundered of their property, so bereaved of their rights, so damped in their understandings. Bigotry has for generations been seated on the throne, and the inquisitor-general has been regarded as its chief pillar. Under the shelter of this tribunal no deceit could be detected, no abuse denounced, no error disproved, no prejudice exploded, no aggression repelled, no mistake corrected, no injustice opposed. Confidence and frankness were destroyed by the fear of finding every man an informer, in a society where friends were enjoined to accuse friends, on pain of excommunication; no liberal opinion could be formed or expressed with impunity, where every such opinion might be visited with the punishment of heresy. The impudent and barefaced insults offered to the reason, common sense, and common feeling of the people, under such secure protection, are almost incredible.

While the inquisition prevented improvement, and cut off the springs of knowledge, it tended, by the form of process by which it was guided, and the tragedies it frequently exhibited, to pervert the sentiments of justice and to encourage hardened inhumanity. When denunciation was commanded under the sanction of the most formidable anathemas, the gratification of private malice became a religious duty. Revenge, when baffled in other quarters, might drag its prey to

the prisons of the holy office, and there, without the fear of detection, was always sure of ample vengeance. Condemned already was the man, on whom his enemy could contrive to attach such a suspicion of heresy as to excite the activity of the tribunal. He was seized in the silence of the night, and his house exchanged for a dungeon, on a charge which he had neither the means of knowing or disproving. The very suspicion of guilt was its punishment. His friends avoided him like a pestilence, because, without being able to assist him by their services, they might expose themselves to his fate by their interference. His family, though involved in his ruin by the sequestration of his property and by the collateral and transmissible infamy attached to his name, were not allowed to see him, to administer to him either consolation or advice. It might have been some relief to have seen his accuser, or to have been confronted with his witnesses, that he might answer the charges of the one, or disprove the testimony of the other; but this also was denied him: he was fatally involved in the labyrinth of his mysterious guilt, without a consciousness of his crime, or a clue to escape. He descended to these durissima regna without a friend, without an adviser, without a prosecutor, where he found only the inquisitor and his ministers,

— regemque tremendum,
Nesciaque humanis precibus mansuete corda :

where he found the gloom, the solemnity, the terrors of the poetic hell; in short all the preparations and attributes of the pagan's last judgment, except its justice. Here he was left, during the pauses of punishment, to conjecture by whom and for what he was accused and punished; instead of hearing his accuser and witness named, he was obliged to name them himself under the torture; and, if he failed in his conjecture, after ransacking his memory for every possible ground of charge, and every probable enemy, his condemnation was decreed. With the frightful prospect of death before them, and under the excruciating agony of the question, the wretched prisoners ran over crimes they never dreamt of committing, and gave a catalogue of persons whom they never suspected of enmity or heresy. A woman, whose fate is recorded, being required to mention her accomplices, informer, and witnesses, named 600 individuals; but, as she did not fix upon the proper persons, she was condemned. On her way to the fire her daughter approached her, and particularised some relation which she thought her mother might have forgotten. ‘Alas!’ cried the devoted victim, ‘I have already named all Portugal and Castile, but it would not avail.’

The culprit, after undergoing the torture and a long imprisonment, was at last handed over to the secular power as impenitent, contumacious, or relapsed, and the spectacle exhibited to the people was now still more cruel and terrible than that which the holy fathers enjoyed in their pitiless dungeons. The condemned were led forth to execution by burning (which is the most terrible death, says a Spanish author, for the most horrible of crimes); and of this display of sup-

plicary vengeance the most tremendous and awful solemnity was made. Notice was given at the churches that on a particular day (generally a festival or Sunday), an act of the faith (which originally meant a sermon concerning the faith preached on such occasions) would be given at such a particular place, and an indulgence of forty days offered to all who should go to witness the transactions there to be performed, the torments and punishments of heretics. Great crowds of the faithful attended—the monasteries sent forth their tribes—the clergy, from a considerable distance, poured towards the execution—the civil authorities of all classes were on duty—the greatest preparations were made—the bell of the cathedral tolled—the standard of the inquisition was unfurled—and the train of heretics, dressed in sackcloth painted with flames, devils, and monsters, and walking barefooted accompanied with cannibals which we have neither space nor desire to describe, proceeded, first, in procession from the prison to the holy office to hear a sermon, and then to the place of execution. The prisoners were frequently reserved till there was a sufficient accumulation of them for one grand tragedy. To this entertainment kings, princes, grandes, and courtiers, were invited, as to a magnificent bull-fight, a splendid display of fire-works, or a gorgeous theatrical exhibition. The effect of the pageant was not to be weakened by the emotions of pity. Philip II. enjoyed the sight with a countenance and a heart unmoved. Charles II. had the most pompous one that ever was exhibited, prescribed to him as a medicine. It will be seen, in accounts of these spectacles, with what unmolested eyes and unruffled features even the ladies of the court beheld the writhings and convulsions of these suffering wretches, heard their horrible cries, and resisted their moving appeals. To have shed tears would have been a crime. They would as soon have wept over Satan on the burning lake. Philip III. is said to have expiated some natural tears shed by him on this occasion with his blood; that is, with a drop of his blood drawn by the inquisitor-general, and burnt by the hands of the common executioner as an emblem of the punishment such heretical sympathy deserved. The preacher who delivered the sermon of the faith, at the great auto, before Charles II. in 1680, where 120 prisoners were present, nineteen of whom were in an hour to be cast into the flames; in the plenitude of his joy burst into an appropriation of the words of the Canticles: ‘Ah! thou holy tribunal!’ said he, ‘for boundless ages mayest thou keep us firm in the faith, and promote the punishment of the enemies of God.’ Of thee I may say what the Holy Spirit said of the church, ‘Thou art fair, my love, thou art fair as the tents of Kedar, as the sightly skins of Solomon.’ Of the infuriated conduct of the people on such occasions, the following account from Dr. Geddes will be a sufficient specimen. ‘At the place of execution, in Lisbon, there are so many stakes set up as there are prisoners to be burnt, with a good quantity of dry furze about them. The stakes of the professed are about four yards high, and have a small board within half a yard of the top.

The negative and relapsed being first strangled and burnt, the professed go up the ladder betwixt the two Jesuits who have attended them all; and when they come up to the board they turn round to the people, and the Jesuits spend nearly a quarter of an hour in exhorting them to be reconciled to the church of Rome, which if they refuse to do, the Jesuits come down and the executioner ascends, and having turned the professed off the ladder upon the seat, and chained their bodies close to the stake, the Jesuits renew their exhortation, and, at parting, tell them that they leave them to the devil, who is standing at their elbow to carry their souls to hell as soon as they are out of their bodies.'

Scenes, at the description of which the flesh creeps and the heart is horror struck, were often presented at these spectacles. The prisoners frequently resisted with the greatest fury, struggling to free themselves from the stake, while the incarnate fiends allowed the fire to fall away, or added fuel as suited their purpose to heighten or prolong their torments. Sometimes the exultation of martyrdom was expressed in the defiance of despair. Francisco Botello, a Jew, when brought forth for execution was shown his wife, who, without his knowledge, made one of the same auto; 'but such was his shameful conduct,' says the Report, 'that he beheld her with as much joy as if it had been the happiest day of his life, animating a friend who was burning beside him to die in his own lame faith.' Francisco Lopez, says another Report, 'who was burnt in an auto celebrated at Mexico in 1659, stood on the platform of the stage in a most contumacious manner, and, resembling a demon, cast forth sparks from his eyes, and gave beforehand signs of his eternal condemnation.' Sometimes the sufferers, in their lingering torments, made the most pathetic appeals to the sympathy of the spectators, not for a release from their doom, but a more speedy dispatch of their agony. 'Of the five persons condemned,' says Mr. Wilcox, afterwards bishop of Gloucester, in a letter to Dr. Burnet, speaking of an auto celebrated at Lisbon, on the 10th of December, 1705, 'there were but four burnt. Two were first strangled, two, a man and a woman, were burntalive. The execution was very cruel—the woman was alive in the flames half an hour, and the man above an hour. The present king and his brother were seated in a window so near as to be addressed in very moving terms by the man while he was burning. The favor he asked was only a few more faggots, yet he was unable to obtain it. Those who are burned here are seated on a bench twelve feet high, fastened to a pole, and above six feet higher than the faggots. The wind being a little fresh, the man's hinder parts were perfectly wasted, and as he turned himself his ribs opened before he left speaking; the fire being recruited as it wasted, to keep it just in the same degree of heat. All his entreaties could not procure him a larger allowance of wood to shorten his misery.' The last instance of barbarity carried to the length of burning for heresy, was exhibited at Seville in 1781, on the person of a woman who had been guilty of licentious irregu-

larities, and justified her conduct by special revelations from an angel.

The power of the inquisition was still considerable after its holocausts had ceased; but it was exerted rather in encouraging petty vexations, enjoining ridiculous penances, and prohibiting useful books, than in serious acts of outrage. The rack was disused, as well as the fagot. The familiars became less officious, and the inquisitors were sometimes found to be men of worth and humanity. During the administration of the prince of peace, and for some time before, the holy office became a mere tool in the hands of the government, and was even in this point of view thought of so little service that the design was more than once entertained of abolishing it; and he is said to have got the royal signature to a decree for that purpose in 1796, which by some accident was not carried into execution. The evidences of its former exploits still graced the walls of churches and convents; the pictures and sentences of those whose persons it had burned, or whose property it had confiscated, still remained exposed for the edification of the faithful. A profligate monk or a licentious nun, for bringing scandal on their order, might be threatened with its vengeance; it suppressed mason lodges, and political tracts; and from the arbitrary nature of its proceedings, which remained unchanged, it was still capable of doing much mischief, but it latterly made no approach to violence or rigor.

The last auto of any consequence that it celebrated was in 1781, and excited the ridicule of all Madrid. Ignacio Rodriguez, a common beggar, was condemned to wholesome penance for deserting his mendicant profession, turning sorcerer, and making love-powders. During the time of the French revolution it was of course very active in preventing any importation of political or religious works from that infected country; and many books of all kinds were inserted in its Index Expurgatorius, or laid up on its shelves under the protection of hosts of devils, cracking the bones of heretics. This leniency or inefficiency does not seem to have proceeded from any improvement in the popular mind, but from the insensible influence of European liberality on the high classes, and from the want of opposition or provocation.

In this state of weakness was it when, in 1808, Napoleon decreed its abolition, and the inquisitor-general joined the French party. In the troubles which followed the French invasion the functions of the different tribunals remained suspended, although several of them did not acknowledge the authority of the conqueror. The inquisition usurps the authority of the bishops, the ordinary judges of heretical gravity, by virtue of a papal commission, conferred on it through the medium of the inquisitor-general, in whom the election of subordinate officers is vested, and whose sanction is necessary to give validity to every sentence. Without him the courts can no more act than an army without a general; without him their judges are no more judges of the faith, than ministers of finance; and as the pope, whose bull is necessary to confer that commission, was in the hands of the enemy that dissolved it,

as well as the individual who formerly held it, no processes could be instituted or concluded. The inquisitors, thus dispersed, flocked from all quarters to Cadiz, besieging the government with petitions and memorials; and while not a spot of the Peninsula remained unpolluted with the foot of the invader, except one city, while even the batteries of the enemy were endangering the safety of the existing authorities within the walls of that city, while their country was overrun with Catholic enemies, and defended alone by heretical friends, the most strenuous efforts were made by superstition for the restoration of its protecting judicature.

The liberal party perceived the advantage they had gained, and vigorously laid hold of it. They considered the inquisition as abolished, and they threw upon their opponents the burden of proving the necessity of its re-establishment: they gained the concurrence of the nation for a constitution, the articles of which, defining the judicial power and regulating its exercise, were inconsistent with its non-existence; and thus its restoration became impracticable. They decreed that torture should be no longer employed, that trials should be public, that witnesses should be confronted with those against whom they depose, that confiscation should no longer exist, that freedom of speech was the necessary privilege of a deputy. And having thus removed the fundamental principles of inquisitorial legislation, the very pillars and corner-stones on which it rested, they allowed it to drop on the heads of its supporters. The nation was asked if they would consent to reconstruct such a monument of barbarism; if, after having sworn to defend the constitution, they were inclined to commit political perjury in destroying it; if they were prepared to erect a mausoleum for their liberty at the very hour of its birth. All the zeal and talent of the nation were employed in the controversy. Innumerable publications appeared on both sides. After receiving petitions from the inquisitors for the revival of the office, after hearing representations from bishops, towns, and provinces, on the same subject, the Cortes appointed a commission, of which Arguelles and several other able and enlightened men were members, to enquire whether the re-establishment of the inquisition was consistent with the maintenance of the constitution; and the result of their opinion was that the tribunal ought to be abolished. The eloquent, elaborate, and ingenious statement of the facts and reasonings which determined their judgment, is detailed in their report, presented to Congress on the 3d of December, 1812. This was followed up with equal ability in the speeches of many of the members of that body; the majority of which on the great question (ninety to sixty) came to a similar conclusion. The discussion on the different propositions connected with the subject continued with some intervals from the end of December to the 22d of February. The speeches (most of them read and handed over to the printer) are now before us in a volume of 694 pages, and display sometimes a depth of research, and sometimes a power of eloquence, united with liberal views and sound reasoning, which it

would be difficult to match in any country but our own. But it must not be supposed, though the liberal party was triumphant in the Cortes, that the nation was unanimous in their support, that their opponents were few or insignificant, or that what has happened since is at all an anomaly. The greatest alarm was raised both in the national assembly and in the country; and the cry that the church was in danger resounded on all sides.

The priests and monks contrived to convince the people that the Catholic faith and the holy office were identified, that the inquisition and religion were synonymous terms, and that every one who spoke and wrote against that tribunal was an enemy of devotion, an antichrist, a blasphemer of the glorious saints, and of the blessed virgin. Doctrines such as these were preached in every village, before every convent, in almost every public square; handbills were posted up to the same effect, and every engine of delusion and falsehood was set at work. The ignorant were told that they could not hold their religion a day if they were deprived of the tribunal that protected it; that they would all be obliged to become heathens, heretics, and Lutherans; that they would have no mass, no pope, no purgatory, no rosaries; that our Lady of the Pillar, and St. James of Compostella, would desert them; that they must expect no longer the countenance of the saints; that every miracle would cease; that they would be exposed without protection to the visitations of earthquakes, storms, and bad harvests. In order to make them cling still closer to their religion, and that institution which by one fanatic was called the pontiff of the faith, and by another its battering ram, they were told that they were the only nation hitherto uncontaminated with heresy; that this pestilent distemper had been kept off from their shores by an inquisitorial quarantine; that they were the most Catholic people upon earth, the privileged monopolists of a pure apostolic worship, the champions of the virgin, and the favorites of heaven and its inhabitants. The nations around them were stigmatised as composed of men overrun with the plague of apostasy; a revolting assemblage of atheists, sorcerers, and freemasons; the enemies of the pope and the sacraments; the contentious partisans of infuriated sects; and the devoted victims of divine vengeance. The steps by which they had arrived at such a deplorable state of corruption and infidelity were, the impunity allowed to heretics, the establishment of the principle of toleration, and the opposition made to the holy office. The Jews and Moors, with all their diabolical rites, had been expelled by the zeal of Catholic kings, or had fled from the just terrors of a sainted and a faggot; but more insidious and dangerous enemies of the true faith threatened the Spanish church, if its natural bulwark were destroyed, in the professors of liberal ideas, the preachers of clerical reform, the pretenders to primitive purity, the antagonists of priestly and papal domination, the secret emissaries of heresy or protestantism, the bastard children of the church who, having no share of the inheritance of their father, were anxious to excite dissensions within the family of the faithful, the vipers who endeav-

voured to destroy their mother by biting her in the most vital part, and infusing into her wound the deadly venom of error and incredulity. Argument, and reason, and authority, it was said, were weak obstacles to the design of such men; the ordinary ministers of religion had not sufficient vigilance to detect their insidious arts, or sufficient power to repress their open attacks; and nothing but a court, with a numerous and active body of officers spread through all parts of the country, interested in observing the least deviation from the faith, and capable of bringing the culprits to condign punishment, could afford the faithful security against their writings, their discourses, their example, and machinations. Such representations as these, the futility of which could only have been demonstrated by experience and by the steady wisdom of the new government, paved the way for the arbitrary measures of Ferdinand; he has re-instated the inquisition; but the light which the discussion has diffused will not be lost.

The inquisition was established in Portugal at the pressing solicitations of king John III. about the year 1536.

The power of the inquisition was very much limited at Venice, where it was introduced about the year 1289; the office consisting of secular and ecclesiastical persons, though the latter had been long endeavouring to bring it into their own hands, but could never prevail with the Venetian senate to agree to it. Indeed at Venice it seemed rather a political than a religious contrivance; and served rather for the security of the state than that of the church. There are appeals from the subaltern inquisitions in Italy, to the congregation of the holy office residing at Rome.

The congregation was first formed by Paul III. in 1542, but finally established by Sixtus V. in 1588. The members of it, called supreme inquisitors, assemble thrice in the week, and every Thursday in the presence of the pope, who presides in it.

The best accounts of the inquisition and its practices are Limboreh's History, by Chandler. The Inquisition unmasked: being an Historical and Philosophical Account of that Tremendous Tribunal, founded on Authentic Documents, Written and Published at a Time when the National Congress of Spain was about to deliberate on this Important Measure. By D. Antonio Puigblanch. Translated from the Author's enlarged copy by W. Walton Esq. 2 vols. 8vo. Baldwin and Co., London, 1816. Llorente's History of the Inquisition, in Spanish, which extends, we believe, to 4 vols. 4to, and the English Translation and abridgment of it in 1 vol. 8vo.

INRAIL', v. a. In and rail. To enclose with rails.

In things indifferent, what the whole church doth think convenient for the whole, the same if any part do wilfully violate, it may be reformed and *inrailed* again, by that general authority wherunto each particular is subject. *Hooker.*

Where famed St. Giles's ancient limits spread,
An *inrailed* column rears its lofty head;
Here to seven streets seven bails count the day,
And from each other catch the circling ray. *Gay.*

IN'ROAD, *n. s.* In and road. Incursion; sudden and desultory invasion.

Many hot *inroads*
They make in Italy.

Shakspeare. Antony and Cleopatra.

From Scotland we have had in former times some alarms and *inroads* into the northern parts of this kingdom. *Bacon.*

The loss of Shrewsbury exposed all North Wales to the daily *inroads* of the enemy. *Clarendon.*

By proof we feel

Our power sufficient to disturb his heaven,
And with perpetual *inroads* to alarm,

Though inaccessible his fatal throne. *Milton.*

The country open lay without defence:

For poets frequent *inroads* there had made. *Dryden.*

INSANE', adj. Lat. *insanus.* Mad; making mad.

Were such things here as we do speak about?

Or have we eaten of the *insane* root,

That takes the reason prisoner? *Shakspeare. Macbeth.*

INSA'TIABLE, *adj.* Lat. *insatiabilis*, in-

INSA'TIABLENESS, *n. s.* } *satiatus*, *insatisfac-*

INSA'TIABLY, *adv.* } *insaturabilis.* Greedy

INSA'TIAT', adj. } beyond measure, so

INSA'TISFACTION, *n. s.* } as not to be satisfied:

INSA'TRABLE, *adj.* } used in a literal and

figurative sense. Insatiable, want; an unsatiated state. Insatiable, not to be gratified or filled.

With hir vengeance *insatiable*,

Now have thei hym giltlesse entred so,

That to report it is to lamentable.

Chaucer. Lamente of Mary Mrgdalene.

O cruel Destiny (quod she), O Fortune *insatiable*,

O wavering world, rolling like a ball!

You are so wayward and so unstable,

That never any assurance can be in you at all.

G. Carendish's Metrical Visions.

My mother went with child

Of that *insatiate* Edward.

Shakspeare. Richard III.

It is a profound contemplation in nature, to consider of the emptiness or *insatisfaction* of several bodies, and of their appetite to take in others.

Bacon's Natural History.

Some men's hydropick *insatiableness* had learned to thirst the more, by how much more they drank.

King Charles.

Insatiate to pursue

Vain war with heaven. *Milton.*

Too oft has pride

And he'li'fish discord, and *insatiate* thirst

Of others' rights, our quiet discomposed. *Phillips.*

They were extremely ambitious, and *insatiably covetous*; and therefore no impression, from argument or miracles, could reach them. *South.*

Insatiate archer! could not one suffice?

Young's Night Thoughts. Death.

There, breathless, with his digging nails he clung Fast to the sand, lest the returning wave,

From whose reluctant roar his life he wrung,

Should suck him back to her *insatiate* grave.

Byron. Don Juan.

INSCRIBE', v. a. Fr. *inscrire*; Lat. *in-*

INSCRIP'TION, *n. s.* } *scribo.* To write on any thing. It is generally applied to something written on a monument, or on the outside of something. It is therefore more frequently used with *on* than *in*. To mark any thing with writing; to assign to a patron without a formal dedication; to draw a figure within another: inscription;

something written or engraved; a title. In law, an obligation made in writing, whereby the accused binds himself to undergo the same punishment, if he shall not prove the crime which he objects to the party accused, in his accusatory libel.—Ayliffe's *Paregorn*. Consignment of a book to a patron without a formal dedication.

*In all you writ to Rome, or else
To foreign princes, ego et rex meus
Was still inscribed.*

Shakspeare, Henry VIII.

In the circle inscribe a square.

Notes to Creeche's Manilius.

Connatural principles are in themselves highly reasonable, and deducible by a strong process of ratiocination to be most true; and consequently the high exercise of ratiocination might evince their truth, though there were no such originally inscribed in the mind. *Hale's Origin of Mankind.*

Joubertus by the same title led our expectation, whereby we reaped no advantage, it answering scarce at all the promise of the *inscription*. *Brown.*

This avance of praise in time to come,
Those long *inscriptions* crowded on the tomb.

Dryden.

One ode, which pleased me in the reading, I have attempted to translate in Pindarick verse. 'tis that which is *inscribed* to the present Earl of Rochester.

Id.

Ye weeping loves! the stream with myrtles hide,
And with your golden darts, now useless grown,
Inscribe a verse on this relenting stone. *Pope.*

Inscribed above the portal from afar,
Conspicuous as the brightness of a star. *Couper. Truth.*

A worthy moral, and a wise *inscription*,
For a king to put up before his subjects. *Brown. Tragedy. Sardanapalus.*

An INSCRIPTION is a title or writing affixed to any thing to give some farther knowledge of it, or to transmit some important truth to posterity. Antiquaries are very curious in examining ancient inscriptions found on stones and other monuments of antiquity. It appears that the ancients engraved upon pillars the principles of sciences, as well as the history of the world. Those mentioned by Herodotus show, that this was the first way of instructing people, and of transmitting histories and sciences to posterity. This is confirmed by Plato in his *Hippias*; wherein he says, that Pisistratus engraved on stone pillars precepts useful for husbandmen. Pliny assures us, that the first public monuments were made of plates of lead; and that the treaties of confederacy concluded between the Romans and the Jews were written upon plates of brass; that, says he, the Jews might have something to put them in mind of the peace and confederacy concluded with the Romans. The Greeks and Romans were great dealers in inscriptions, and we find so many in those countries of ancient learning, that large volumes have been composed on them; as the collection of Grnter, &c. Since Grnter's collection, Th. Reinesius has compiled another large volume on inscriptions. After all these Gravins published a complete collection of inscriptions, in 3 vols. folio.

INSCRUTABLE, *adj.* Fr. *inscrutable*; Lat. *inscrutabilis*. Unsearchable, not to be traced out by enquiry or study.

O how *inscrutable*! his equity
Twins with his power. *Sandys.*

A jest unseen, *inscrutable*, invisible. *Bacon.*

As a weather-cock ou a steeple. *Shakspeare.*
This king had a large heart, *inscrutable* for good,
and was wholly bent to make his kingdom and pe-
ople happy. *Bacon.*

Hereinto they have recourse as unto the oracle of life, the great determination of virginity, conception, fertility, and the *inscrutable* infinities of the whole body. *Brown.*

We should contemplate reverently the works of nature and grace, the *inscrutable* ways of Providence, and all the wonderful methods of God's dealing with men. *Attberry.*

Baal himself

Ne'er fought more fiercely to win empire, than
His silken son to save it: he defies
All augury of foes or friends, and like
The close and sultry summer's day, which bodes
A twilight tempest, bursts forth in such thunder
As sweeps the air and deluges the earth.
The man's *inscrutable*. *Byron. Sardanapalus.*

INSCULP^T, *v.a.* Lat. *insculpo*. To en-
INSCULPTURE, *n.s.* {grave, or cut: any thing
engraved.

A coin that bears the figure of an angle
Stamped in gold, but that *insculpt* upon.

Shakspeare.

Timon is dead,
Entombed upon the very hem o' the sea:

And on the grave stone this *insculpture*, which
With wax I brought away. *Id. Timon.*

It was usual to wear rings on either hand; but
when precious gems and rich *insculptures* were added,
the custom of wearing them was translated unto the
left. *Brown.*

INSEAM^T, *v.a.* In and seam. To impress
or mark by a seam or cicatrix.

Deep o'er his knee *inseamed* remained the sear.
Pope.

INSECT^T, *n.s.* } Lat. *insecta*, *insector*.
INSECTOR, *n.s.* } *Insecta*, and Gr. *λειος*.
INSECTILE, *adj.* } Called insects from a
INSECTOLOGER, *n.s.* } separation in the middle
of their bodies, whereby they are cut, as it were,
into two parts, as we see in wasps and common
flies. See ENTOMOLOGY. Any thing small or
contemptible: insectator, one that harasses by
pursuing: insectile, having the nature of insects:
insectologer, one who studies or describes in-
sects; a word without authority.

Insectile animals, for want of blood, run all out
into legs. *Bacon.*

Beast, bird, *insect*, or worm, durst enter none.
Milton.

The new-formed *insect* on the water moves,
The speckled trout the curious snare approves.
Gay's Rural Sports.

The insect itself is, according to modern *insectolo-*
gers, of the ichneumon-fly kind. *Derham.*

In ancient times the sacred plough employed
The kings, and awful fathers of unkind;
And some with whom compared, your *insect* tribes
Are but the beings of a Summer's day. *Thomson.*

Man, who madly deems himself the lord
Of all, is nought but weakness and dependance.
This sacred truth, by sure experience taught,
Thou must have learnt, when wandering all alone,
Each bird, each *insect*, flitting thro' the sky,
Was more sufficient for itself than thou.
Id. Cervilans.

In the vast and the minute we see
The unambiguous footsteps of the God
Who gives its lustre to an *ince's* wing,
And wheels his throne upon the rolling worlds.
Couper.

INSECTS. See ENTOMOLOGY.

INSECURE', adj. Lat. *insecurus*. Not secure; not confident of safety: insecurity is, uncertainty; danger; hazard; peril.

It may be easily perceived with what *insecurity* of truth we ascribe effects, depending upon the natural period of time, unto arbitrary calculations, and such as vary at pleasure. *Browne.*

The unreasonable and presumption, the danger and desperate *insecurity*, of those that have not so much as a thought, all their lives long, to advance so far as attrition and contrition, sorrow, and resolution of amendment. *Hammond.*

He is liable to a great many inconveniences every moment of his life, and is continually *insecure* not only of the good things of this life, but even of life itself. *Tillotson.*

INSEMINATION, n. s. Fr. *insemmination*; Lat. *inseminatio*. The act of scattering seed on ground.

INSECUTION, n. s. Fr. *insecution*; Lat. *insecutio*. Pursuit. Not in use.

Not the king's own horse got more before the wheel
Of his rich chariot, that might still the *insecution*
feel,
With the extreme hairs of his tail. *Chapman's Iliad.*

INSENSATE', adj. Fr. *insensé*, *insensible*; Ital. *insensato*; Lat. *in* and *sensio*. **INSENSIBILITY, n. s.** Lat. *bilis*. The quality of not being sensible: stupid; deficient in thought or sensibility: inability to perceive; torpor; dulness of corporal sense, or mental perception: insensible, imperceptible; slow; gradual; void of feeling, emotion, or affection: insensibility has the same meaning: insensibly, in such a manner as is not discovered by the senses; slowly; gradually.

What is that word honour? Air; a trim reckoning. Who hath it? He that died a Wednesday. Doth he feel it? No. Doth he hear it? No. Is it *insensible* then? Yea, to the dead. But will it not live with the living? No. Why? Detraction will not suffer it. *Shakespeare.*

Ye be reprobates; obdurate *insensate* creatures. *Hammond.*

Two small and almost *insensible* pricks were found upon Cleopatra's arm. *Browne's Vulgar Errors.*

So fond are mortal men,

As their own ruin on themselves t' invite,
Insensate left, or to sense reprobate,
And with blindness internal struck. *Milton's Agamistes.*

Equal they were formed,
Save what sin hath impaired, which yet hath wrought
Insensiblity. *Milton.*

Insensibility of slow motions may be thus accounted for: motion cannot be perceived without perception of the parts of space which it left, and those which it next acquires. *Glanville.*

You grow *insensible* to the conveniency of riches, the delights of honour and praise. *Temple*

You render mankind *insensible* to their beauties, and have destroyed the empire of love. *Dryden.*

They fall away,

And languish with *insensible* decay. *Id.*

The *insensibleness* of the pain proceeds rather from the relaxation of the nerves than their obstruction. *Ray.*

The hills rise *insensibly*, and leave the eye a vast uninterrupted prospect. *Addison on Italy.*

The dense and bright light of the circle will obscure the rare and weak light of these dark colours round about it, and render them almost *insensible*. *Newton's Opticks.*

Proposals agreeable to our passions will *insensibly* prevail upon our weakness. *Rogers's Sermons.*

Cadenus

Insensiblity came on her side. *Swift.*

Insensiblity of truth's almighty charms,
Starts at her first approach, and sounds to arms! *Couper's Hope.*

Peace (if *insensibility* may claim
A right to the meek honours of her name). *Id.*

Thus Harold only said, and passed along,
Yet not *insensiblity* to all which here
Awoke the jocund birds to early song
In glens which might have made even exile dear. *Byron's Childe Harold.*

INSEPARABILITY, n. s. Lat. *inseparabilis*. **INSEPARABleness, n. s.** Lat. *bilis*. The quality of not being separable: divisible: not to be disjoined: with indissoluble union.

Lordship may not (of kinge nor empereur)
Reforme a thing which is nat reformable;
Rust of defaunce, is *inseparable*. *Chaucer's Miscellanies.*

Drawing of metals is, when the baser metal is so incorporate with the more rich as it cannot be separated; as if silver should be *inseparably* incorporated with gold. *Bacon.*

Ancient times figure both the incorporation and *inseparable* conjunction of counsel with kings, and the wise and politic use of counsel by kings. *Id.*

Thou, my shade

Inseparable, must with me along;
For death from sin no power can separate. *Milton.*

Restlessness of mind seems *inseparably* annexed to human nature. *Temple.*

Care and toil came into the world with sin, and remain ever since *inseparable* from it. *South.*

Oh! nothing now can please me,
Darkness, and solitude, and sighs, and tears,
And all the *inseparable* train of grief,
Attend my steps for ever. *Dryden.*

The parts of pure space are immoveable, which follows from their *inseparability*, motion being nothing but change of distance between *any* two things; but this cannot be between parts that are *inseparable*. *Locke.*

No body feels pain, that he wishes not to be eased of, with a desire equal to that pain, and *inseparable* from it. *Id.*

Atheists must confess, that before that assigned period matter had existed eternally, *inseparably* endued with this principal of attraction; and yet had never attracted nor convened before, during that infinite duration. *Bentley.*

Together out they fly,
Inseparable now the truth and lie;
And this or that unmixt no mortal e'er shall find. *Pope.*

INSERT, *v. a.* } Fr. *insertion*; Lat. *in-*
INSERTION, *n. s.* } *sero*. To place in or
 amongst other things; to interline: insertion, the
 thing so placed or inserted.

Those words were very weakly *inserted*, where
 they are so liable to misconstruction. *Stillingfleet.*

With the worthy gentleman's name I will *insert* it at length in one of my papers. *Addison.*

An ileus, commonly called the twisting of the
 guts, is either a circumvolution or *insertion* of one
 part of the gut within the other. *Arbuthnot.*

The great disadvantage our historians labour under
 is too tedious an interruption, by the *insertion* of records in their narration. *Felton on the Classics.*

It is the editor's interest to *insert* what the author's
 judgment had rejected. *Swift.*

He softens the relation by such *insertions*, before
 he describes the event. *Browne.*

Poesy and oratory omit things not essential, and
insert little beautiful digressions, in order to place
 every thing in the most affecting light. *Watts.*

INSERVE, *v. a.* } To be of use to an end:

INSERVANT, *adj.* } conducive of a use to an
 end. *Browne.*

The providence of God, which disposeth of no
 part in vain, where there is no digestion to be made,
 makes not any parts *inservient* to that intention. *Browne.*

INSHELL, *v. a.* In and shell. To hide in
 a shell. Not used. *Browne.*

Anfidius, hearing of our Marcus' banishment
 Thrusts forth his horns again into the world,
 Which were *inshelled* when Marcus stood for Rome,
 And durst not once peep out. *Shakspeare. Coriolanus.*

INSHIP, *v. a.* In and ship. To shut in a
 ship; to stow; to embark. Not used. We say
 simply to ship.

See them safely brought to Dover, where *inshipped*,
 Commit them to the fortune of the sea. *Shakspeare.*

INSHRINE, *v. a.* In and shrine. To en-
 close in a shrine or precious case. It is written
 equally *enshrine*.

Warlike and martial Talbot, Burgundy
Inshrine thee in his heart. *Shakspeare. Henry VI.*

Not Babylon,
 Equalled in all its glories, to *inshrine* Belus. *Milton.*

INSIDE, *n. s.* In and side. Interior part;
 part within. Opposed to the surface or outside.

Looked he o' the *inside* of the paper?
 —He did unscul them. *Shakspeare. Henry VIII.*

Show the *inside* of your purse to the outside of his
 hand, and no more ado. *Id. Winter's Tale.*

Here are the outsides of the one, the *insides* of the
 other, and there's the moiety I promised ye. *I'Estrange.*

As for the *inside* of their nest, none but themselves
 were concerned in it. *Addison's Guardian.*

INSIDE GUARD, in the broad sword exercise,
 a guard to secure the face and front of the body
 from a cut made at the *inside* of the position,
 above the wrist. See **SWORD EXERCISE**.

INSIDIATOR, *n. s.* Fr. *insidieuse*; Lat.
insidiator, *adj.* *insidiosus*. Sly; dili-

INSIDIOUSLY, *adv.* Sly; agent to entrap; trea-
 cherous; with malicious artifice; by stealth or

in a deceitful manner: *insidiator* is one who lies in wait.

The castle of Cadmus was taken by Pheidas the Lacedemonian, *insidiously* and in violation of league. *Bucou.*

Since men mark all our steps, and watch our haltings, let a sense of their *insidious* vigilance excite us to behave ourselves, that they may find a conviction of the mighty power of Christianity towards regulating the passions. *Atterbury.*

They wing their course,
 And dart on distant coasts, if some sharp rock,
 Or shoal *insidions*, breaks not their career. *Thomson.*

Simeon and Levi spoke not only falsely but *insi-*
 diously, nay hypocritically, abusing their proselytes and their religion, for the effecting their cruel designs. *Government of the Tongue.*

Against the head which innocence secures
Insidious malice aims her darts in vain,
 Turned backward by the powerful breath of heaven. *Dr. Johnson's Irene.*

The palace has become a fortress
 Since that *insidions* hour. *Byron. Tragedy. Sardanapalus*, act 5. sc. 1.

Till worn by age, and mouldering to decay,
 The *insidions* waters wash its base away. *Canning.*

INSIGHT, *n. s.* Dut. *insicht*. This word
 had formerly the accent on the last syllable. In-
 trospection; deep view; knowledge of the inter-
 rior parts; thorough skill in any thing.

For though the people have no great *insight*
 In vertue, he considered ful right
 Hire bountie; and disposed, that he wold
 Wedde hire only, if ever he wedden shold. *Chancier. The Clerkes Tale.*

Straitway sent with careful diligence
 To fetch a leech, the which had great *insight*
 In that disease of grieved conscience,
 And well could cure the same; his name was Pa-
 tience. *Spenser.*

Now will be the right season of forming them to
 be able writers, when they shall be thus fraught
 with an universal *insight* into things. *Milton.*

Hardy shepherd, such as thy meits, such may be
 her *insight* justly to grant thee reward. *Sidney.*

The use of a little *insight* in those parts of knowl-
 edge, which are not a man's proper business, is to
 accustom our minds to all sorts of ideas. *Locke.*

A garden gives us a great *insight* into the contriv-
 ance and wisdom of providence, and suggests immen-
 sareable subjects of meditation. *Spectator.*

Due consideration, and a deeper *insight* into
 things, would soon have made them sensible of their
 error. *Woodward.*

IN SIGNIFICANCE, *n. s.* Fr. *insignifi-*
IN SIGNIFICANCY, *n. s.* *cance*; Lat. *or*
IN SIGNIFICANT, *adj.* *and significo.*
IN SIGNIFICANTLY, *adv.* Want of mean-
 ing: unimportance. Unimportant; wanting
 weight; ineffectual: this sense, though sup-
 ported by authority, is not very proper. Insignifi-
 cantly, in an unmeaning or trifling manner.

Birds are taught to use articulate words, yet they
 understand not their import, but use them *insignifi-*
 cantly, as the organ pipe renders the tone, which it
 understands not. *Hale.*

To give an account of all the *insignificancies* and
 the verbal nothings of this philosophy, would be to
 transcribe it. *Gionville.*

All the arguments to a good life will be very *in-*

significant to a man that hath a mind to be wicked, when remission of sins may be had upon cheap terms.

Titłotson.

My annals are in mouldy mildews wrought,
With easy *insignificance* of thought. *Garth.*

Calumny robs the publick of all that benefit that it may justly claim from the worth and virtue of particular persons, by rendering their virtue utterly *insignificant*. *South.*

As I was ruminating on that I had seen, I could not forbear reflecting on the *insignificance* of human art, when set in comparison with the designs of Providence. *Addison's Guardian.*

Nothing can be more contemptible and *insignificant* than the scum of a people, instigated against a king. *Addison.*

Till you can weight and gravity explain,
These words are *insignificant* and vain. *Blackmore.*

In a hemorrhage from the lungs, no remedy so proper as bleeding, often repeated: stypticks are often *insignificant*. *Arbuthnot.*

So language in the mouths of the adult,
Witness its *insignificant* result. *Couper, Conversation.*

With a pride common to all Italians who have been masters, have not been persuaded to parade their *insignificance*. *Byron's Notes on Childe Harold.*

INSINCERE, *adj.* { Lat. *in* and *sincerus*.

INSINCERITY, *n.s.* { Not what he appears; dissembling; unfaithful, when used of a person; not sound, when used of things; insincerity is dissimulation; want of truth or fidelity.

If men should always act under a mask, and in disguise, that indeed betrays design and *insincerity*. *Broom on the Odyssey.*

Ah why, Penelope, this causeless fear,
To render sleep's soft blessings *insincere*?
Alike devote to sorrow's dire extreme,
The day reflection, and the midnight dream. *Pope.*

INSIN'EW, *v.a.* In and sinew. To strengthen; to confirm. A word not used.

All members of our cause,
That are *insinew'd* to this action. *Shakspeare.*

INSINUANT, *adj.* Fr. *insinuer*; Lat. *insinuare*.

INSINUATE, *v.a. & v.n.* *insinuare.* To intro-

INSINUATION, *n.s.* duce gently into the

INSINT'VIVE, *adj.* bosom; figuratively

INSINUATOR, *n.s.* to gain favor by de-

grees; to hint; to instil; to wheedle; to steal imperceptibly; to enfold; enervate; insinuation, the power of stealing into favor: insinuator implies the disposition: insinuator, the person.

There is no particular evil which hath not some appearance of goodness, whereby to *insinuate* itself. *Hooke.*

I love no colours; and, without all colour

Of base *insinuating* flattery, *Shakspeare.*

I pluck this white rose with Plantagenet. *Shakspeare.*

When the industry of one man hath settled the work, a new man, by *insinuation* or misinformation, may not supplant him without a just cause. *Bacon.*

Pestilential miasmas *insinuate* into the humoral and consistent parts of the body. *Harvey.*

At the isle of Rhee he *insinuated himself* into the very good grace of the duke of Buckingham. *Clarendon.*

He had a natural *insinuation* and address, which made him acceptable in the best company. *Id.*

Close the serpent sly
Insinuating, of his fatal guile

Gave proof unheeded. *Milton.*

All the art of rhetorick, besides order and clearness, are for nothing else but to *insinuate* wrong ideas, move the passions, and thereby mislead the judgment. *Locke.*

Men not so quick perhaps of conceit as slow to passions, and commonly less inventive than judicious, howsoever prove very plausible, *insinuant*, and fortunate men. *Wotton.*

The water easily *insinuates* itself into and placidly distends the vessels of vegetables. *Woodward.*

And all the fictions bards pursue

Do but *insinuate* what's true. *Swift.*

It is a strange *insinuating* power which example and custom have upon us. *Government of the Tongue.*

I scorn your coarse *insinuation*,

And have most plentiful occasion

To wish myself the rock I view,

Or such another dolt as you. *Couper, The Port, Oyster, and Sensitive Plant.*

Serene, accomplished, cheerful, but not loud;
Insinuating without *insinuation*. *Byron, Don Juan.*

INSIPI'D, *adj.* Fr. *insipide*; Lat. *in-*

INSIPI'DTIV, *n.s.* *sipidus.* Without taste;

INSIPI'DNESS, *n.s.* wanting power of affect-

INSIPI'DLY, *adv.* ing the organs of taste;

INSIPI'DENCE, *n.s.* flat; dull; heavy: folly: a want of understanding.

Some earths yield, by distillation, a liquor very far from being inoderous or *insipid*. *Boyle.*

The gods have made your noble mind for me,
And her *insipid* soul for Ptolemy;

A heavy lump of earth without desire,

A heap of ashes that o'erlays your fire. *Dryden's Cleomenes.*

Some short excursions of a broken vow

He made indeed, but flat *insipid* stuff. *Dryden.*

One great reason why many children abandon themselves wholly to silly sports, and trifle away all their time *insipidly*, is because they have found their curiosity banished. *Locke.*

Our fathers much admired their sauces sweet,
And often called for sugar with their meat;

Insipid taste, old friend, to them that Paris knew,

Where rocambole, shallot, and the rank garlic

grew. *King.*

When liberty is gone

Life grows *insipid*, and has lost its relish. *Addison's Cato.*

She lays some useful bile aside,

To tinge the chyle's *insipid* tide. *Prior.*

This chyle is the natural and alimentary pituita,

which the ancients described as *insipid*. *Florey on the Humours.*

On these grounds, therefore, though there cannot be a more partial admirer of the work itself, I cannot hesitate a moment to consider that 'faultless monster,' Sir Charles Grandison, whose *insipid* uniformity of goodness it is fashionable to decry, far the more preferable to be held up to a child as an object of imitation. *Cunning.*

INSIST' *v.a.* Lat. *insisto.* To stand or

INSIST'ENT, *adj.* rest upon; not to recede;

INSIST'URE, *n.s.* to persist; to dwell upon in discourse. Insistent, resting upon any thing: constancy; regularity.

Upon such large terms, and so absolute,

As our conditions shall *insist upon*,

Our peace shall stand firm as rocky mountains. *Shakspeare*

The heavens themselves, the planets, and the center,
Observe degree, priority, and place,
Insiſtence, course, proportion, season, form,
Office, and custom, in all line of order. *Id.*

Were there no other act of hostility but that which we have already *insisted* on, the intercepting of her supplies were irreparably injurious to her.
Decay of Piety.

The combs being double, the cells on each side the partition are so ordered, that the angles on one side *insist* upon the centers of the bottom of the cells on the other side. *Ray.*

The breadth of the substruction must be at least double to the *insistent* wall. *Wotton.*

Insist on, as if each were his own pope,
Forgiveness, and the privilege of hope.
Cooper. Hope.

The diversities in point of correctness, and delicacy which arose from their different ways of life, I do not now *insist* upon. *Beattie.*

INSITENCY, *n.s.* Lat. *in* and *sitio*. Exemption from thirst.

What is more admirable than the fitness of every creature for the use we make of him! The docility of an elephant, and the *insistency* of a camel for travelling in deserts. *Grew.*

INSTITION, *n.s.* Lat. *inſitio*. The insertion or engraftment of one branch into another.

Without the use of these we could have nothing of culture or civility; no tillage, grafting, or *inſition*. *Pay.*

INSNARE, *v.a.* Belg. *in-snarr*. To catch **INSNARER**, *n.s.* In a trap, gin, or snare: and hence figuratively to inveigle; to entangle in difficulties or perplexities; generally written **ENSNARE**, which see.

That the hypocrite reign not, lest the people be *ensnared*. *Job xxvi. 30.*

That which in a great part, in the weightiest causes belonging to this present controversy, hath *insured* the judgments both of sundry good and of some well learned men, is the manifest truth of certain general principles, whereupon the ordinances that serve for usual practice in the church of God are grounded. *Hooker.*

Why strewest thou sugar on that bottled spider,
Whose deadly web *insnurath* thee about. *Shakspeare.*

She *ensnared*

Mankind with her fair looks. *Milton.*

By long experience Durfey may no doubt

Insnare a gudgeon, or perhaps a trout;
Though Dryden once exclaimed, in partial spite,
He fish!—because the man attempts to write. *Fenton.*

These

Insnare the wretched in the toils of law,
Fomenting discord, and perplexing right,
An iron-race. *Thomson.*

INSO'CIABL.E, *adj.* Fr. *insociable*; Lat. *inſociabilis*. Averse from conversation; incapable of connexion or union.

If this austere *insociable* life
Change not your offer made in heat of blood. *Shakspeare.*

The lowest ledge or row must be merely of stone, closely laid, without mortar, which is a general caution for all parts in building that are contiguous to board or timber, because lime and wood are *insociable*. *Wetten's Architecture.*

INSOBRIETY, *n.s.* In and sobriety. Drunkenness; want of sobriety.

He whose conscience upbraids him with profaneness towards God, and *insobriety* towards himself, if he is just to his neighbour, he thinks he has quit scores. *Decay of Piety.*

IN'SOLATE, *v.a.* Lat. *in* and *sol*. To dry in

INSOLATION, *n.s.* The sun; to expose to the action of the sun.

We use these towers for *insolation*, refrigeration, conversation, and for the view of divers meteors. *Bacon.*

If it have not a sufficient *insolation* it looketh pale, and attains not its laudable colour; if it be sunned too long, it suffreth a torrefaction. *Browne.*

INSOLATION, in pharmacy, is a method of preparing fruits, drugs, &c., by exposing them to the heat of the sun's rays; either to dry, to mature, or to sharpen them.

IN'SOLENCE, *n.s.* & *v.a.* Fr. *insolence*;

IN'SOLENCY, *n.s.* Lat. *insolentia*,

IN'SOLENT, *adj.* Pride exerted in

IN'SOLENTLY, *adv.* contemptuous and overbearing treatment of others; petulant contempt. Insolence, a word out of use; to insult or treat with contempt: insolent, contemptuous; haughty; over-bearing: insolently, rudely; haughtily.

Insolent is he that despiseth, in his judgement, all other folk as in regards of his value, of his conning, of his speking, and of his bering. *Chaucer. The Persones Tale.*

They could not restrain the *insolency* of O'Neal, who, finding none now to withstand him, made himself lord of those people that remained. *Spenser.*

Such a nature,

Tickled with good success, disdains the shadow
Which he treads on at noon; but I do wonder

His *insolence* can brook to be commanded

Under Cominius. *Shakspeare.*

The bishops, who were first faulty, *insolenced* and assaulted. *King Charles.*

Blown with *insolence* and wine. *Milton.*

Publick judgments are the banks and shores upon which God breaks the *insolency* of sinners, and stays their proud waves. *Tillotson.*

I warn thee thus, because I know thy temper
Is *insolent* and haughty to superiors. *Dryden. Sebastian and Dorax.*

Not faction, when it shook thy regal seat,
Nor senates, *insolently* loud,

Those echoes of a thoughtles crowd,
Could warp thy soul to their unjust decree. *Dryden.*

Judge me not ungentle,
Of manners rude, and *insolent* of speech,

If, when the public safety is in question,
My zeal flows warm, and eager from my tongue. *Roue's Jane Shore.*

We have not pillaged those rich provinces which we rescued: victory itself hath not made us *insolent* masters. *Attcherbury.*

The steady tyrant man,
Who with the thoughtless *insolence* of power,

For sport alone, pursues the cruel chace. *Thomson.*

The multitude unawed is *insolent*,
Once seized with fear contemptible and vain. *Mallet.*

Her women *insolent* and self caressed,
By Vanity's unwearied finger dressed. *Couper. Expostulation.*

INSOL'VABLE, *adj.* Fr. *insolvable*; Lat. *insol'vabile*; *in* and *solveo*. Not to be solved or cleared; inextricable; inexplicable: insoluble, not to be resolved, cleared, or dissolved: insolvent, one who is unable to pay: insolvency, inability to pay debts. An act of insolvency is a law by which unprisoned debtors are released without payment.

Admit thus, and what shall the Scripture be but a snare and a torment to weak consciences, filling them with infinite scruples, doubts *insoluble*, and extreme despair? *Hooker.*

By public declaration he proclaimed himself *insolvent* of those vast sums he had taken upon credit. *Huet.*

Stony matter may grow in any part of a human body: for when any thing *insoluble* sticks in any part of the body, it gathers a crust about it. *Arbutus.*

Spend a few thoughts on the puzzling enquiries concerning vacuums, the doctrine of infinites, indivisibles and, incommensurables, wherein there appear some *insolvable* difficulties. *Watts on the Mind.*

An *insolvent* is a man that cannot pay his debts. *Watts.*

Insolvent tenant of incumbered space. *Smart.*
The fee of virtue has no claim to thee.
But let *insolvent* innocence go free. *Corper, Charity.*

INSOMUCIP, *conj.* In so much. So that to such a degree that.

To make ground fertile, ashes excell: *insomuch* as the countries about Etna have amends made them for the mischiefs the eruptions do. *Bacon.*

Simonides was an excellent poet, *insomuch* that he made his fortune by it. *L'Estrange.*

They made the ground uneven about their nest, *insomuch* that the slate did not lie flat upon it, but left a free passage underneath. *Addison.*

INSPÉCT', *v. a.* Lat. *inspicio*. To look *INSPEC'TION*, *n. s.* into by way of examination.

INSPEC'TOR, *n. s.* *tion*: inspection, prying, examination; close survey; superintendence; presiding care. In the first sense it should have *into* before the object, and in the second sense it may admit *over*; but authors confound them; inspector, a prying examiner; a superintendent.

When ye unto this balade have *inspecion*,
In my makyng holde me excusable;
It is submitted unto your correacione. *Chancer's Miscellanies.*

With their new fight our bold *inspectors* press,
Like Cham, to shew their father's nakedness. *Denham.*

With narrow search, and with *inspection* deep,
Consider every creature. *Milton.*

We may safely conceal our good deals, when they run no hazard of being diverted to improper ends, for want of our own *inspection*. *Attchbury.*

The divine *inspection* into the affairs of the world doth necessarily follow from the nature and being of God; and he that denies this, doth implicitly deny his existence. *Bentley.*

Young men may travel under a wise *inspector* or tutor to different parts, that they may bring home useful knowledge. *Watts.*

INSPECTION, TRIAL BY, OR BY EXAMINATION, is when, for the greater expedition of a cause, in some point or issue, being either the principal question, or arising collaterally out of it, but

being evidently the object of sense, the judges of the court, upon the testimony of their own senses, shall decide the point in dispute. For, where the affirmative or negative of a question is matter of such obvious determination, it is not thought necessary to summon a jury to decide it; who are properly called in to inform the conscience of the court of dubious facts: and therefore, when the fact, from its nature, must be evident to the court, either from ocular demonstration or other irrefragable proof, there the law departs from its usual resort, the verdict of twelve men, and relies on the judgment of the court alone. As in case of a suit to reverse a fine for non-age of the co-quizor, or to set aside a statute or cognizance entered into by an infant; here, and in other cases of the like sort, a writ shall issue to the sheriff, commanding him that he constrain the said party to appear, that it may be ascertained by the view of his body, by the king's justices, whether it be of full age or not: Ut per aspectum corporis sui constare poterit justiciarius nostris, si predictus an sit plene etatis neene. If, however, the court has, upon inspection, any doubt of the age of the party (as may frequently be the case), it may proceed to take proofs of the party; and particularly may examine the infant himself upon an oath of *voir dire*, veritatem dicere; that is, to make true answers to such questions as the court shall demand of him; or the court may examine his mother, his god-father, or the like.

INSPECTING FIELD OFFICER, a military officer, selected from the line, and nominated by the war-office, to superintend and to vouch for the faithful distribution of monies which are issued to officers acting on detachment, or on recruiting parties, within the limits of a certain appointed district. All district pay-masters are strictly enjoined by the general regulations to have their muster-rolls and pay-lists duly authenticated before a justice of the peace, and to have them witnessed by the inspecting field-officer.

INSPECTOR, Heb. *נִזְבֵּן*, *lhaz'en*, in the Jewish synagogue, an officer whose business consists particularly in inspecting the prayers and lessons, in preparing and showing them to the reader, and standing by him to see he reads right; and, if he mistakes, to correct him.

INSPECTORS, in the Roman law, were such persons as examined the quality and value of lands and effects, in order to the adjusting or proportioning taxes and impositions to every man's estate.

INSPIRATION, *n. s.* Lat. *inspersio*. A sprinkling upon.

INSPIHERE, *v. a.* In and sphere. To place in an orb and sphere.

Where those immortal shapes
Of bright aerial spirits live *insphered*,
In regions mild of calm and serene air. *Milton.*

INSPI'RABLE, *adj.* Fr. *inspirer*; Lat. *inspiratio*, *n. s.* *in* and *spiro*. That **INSPI'RE**, *v. n. & v. a.* may be drawn in *INSPI'REE*, *n. s.* with the breath: the **INSPI'RT**, *n. s.* act of drawing in the breath; the act of breathing into any thing; infusion of ideas into the mind by a superior

power: inspire, to breathie into; to infuse; to animate; to influence: inspirer, he that inspires: inspirit, to animate; actuate; invigorate, and encourage.

He knew not his Maker, and him that inspired into him an active soul, and breathed in a living spirit.

Wisdom xv. 11.

For, when ye mildly looke with lovely biew,
Then is my soule with life and love *inspired.*

Spenser's Sonnet.

I never spoke with her in all my life,

—How can she then call us by our names,

Unless it be by *inspiration!*

Shakespeare.

Your father was ever virtuous, and holy men at their death have good *inspirations.*

Id.

Great power of love! with what commanding fire
Dost thou enflame the world's wide regiment
And kindly heat in every heart *inspire!*

Nothing is free from thy sweet government.

Fletcher's Purple Island.

To these *inspirable* hurts, we may enumerate those they sustain from their expiration of fuliginous steams.

Harley.

We to his high *inspiration* owe,

That what was done before the flood we know.

Denham.

Sighs now breathed

Unutterable, which the spirit of prayer

Inspired, and winged for heaven with speedier flight,

Than loudest oratory.

Milton.

If the *inspiring* and expiring organ of any animal be stopt, it suddenly yields to nature, and dies.

Walton.

Eato, the poet's mind *inspire*,

And fill his soul with thy celestial fire.

Dryden.

A discreet use of becoming ceremonies renders the service of the church solemn and affecting, *inspirits* the sluggish, and inflames even the devout worshipper.

Attberry.

The courage of Agamemnon is *inspirited* by love of empire and ambition.

Pope's Preface to the Iliad.

Ye nine, descend and sing,

* The breathing instruments *inspire*.

Pope.

Inspiration is when an overpowering impression of any proposition is made upon the mind by God himself, and gives a convincing and indubitable evidence of the truth and divinity of it: so were the prophets and apostles *inspired.*

Watts.

Sure 'tis something more,

'Tis heaven directs, and stratagems *inspire*

Beyond the short extent of human thought.

Somerville.

Whether the blossom blows, the Summer ray
Russets the plain, *inspiring* Autumn gleams,
Or Winter rises in the bleakening east.

Thomson's Seasons.

How keen their looks whom liberty *inspires*.

Beattie.

That he who died below and reigns above,
Inspires the song, and that his name is love.

Couper, Table Talk.

--- had none admired,
Would Pope have sung, or Horace been *inspired*?

Byron, Don Juan.

INSPIRATION, among divines, implies the conveying of certain extraordinary and supernatural notices or motions into the soul, or any supernatural influence of God upon the mind of a rational creature, whereby he is formed to a degree of intellectual improvement to which he could not, or would not, in fact, have attained in

a natural way. Thus the prophets spoke by divine inspiration.

Some authors reduce the inspiration of the sacred writers to a particular care of Providence, which prevented any thing they had said from failing or coming to nought; maintaining that they never were really inspired either with knowledge or expression. According to M. Simon, inspiration is no more than a direction of the Holy Spirit, which never permitted the sacred writers to be mistaken. It is a common opinion that the inspiration of the Holy Spirit regards only the matter, not the style or words; and this seems to fall in with M. Simon's doctrine of direction. Theological writers have enumerated several kinds of inspiration: such as, an inspiration of superintendency, in which God so influences and directs the mind of any person as to keep him more secure from error than he would have been merely by the use of his natural faculties; plenary superintendent inspiration, which excludes any mixture of error at all from the performance so superintended; inspiration of elevation, where the faculties act in a regular, and, as it seems, in a common manner, yet are raised to an extraordinary degree, so that the composer shall have more of the true sublime than natural genius could have given; and inspiration of suggestion, when the use of the faculties is superseded, and God speaks directly to the mind, making such discoveries to it as it could not otherwise have obtained, and dictating the very words in which such discoveries are to be communicated, if they are designed as a message to others. It is generally allowed that the New Testament was written by a plenary superintendent inspiration; for without this the discourses and doctrines of Christ could not have been faithfully recorded by the evangelists and apostles, nor could they have assumed the authority of speaking the words of Christ, and evinced this authority by the actual exercise of miraculous powers. Jerome, Grotius, Erasmus, Episcopius, and many others assert that the inspiration of the apostles was not plenary, in other words, that all their writings are not entirely free from error. But the emphatical manner in which our Lord speaks of the agency of the Spirit upon them, and in which they themselves speak of their own writings, will most undoubtedly justify our believing that their inspiration was free from all error. If we allow that there were some errors in the New Testament, as it came from the hands of the apostles, we shall indeed require the aid of some infallible church to decide what are errors and what are not--what are the words which the Holy Ghost teacheth and which may be relied on as true, and what are to be rejected as erroneous: and it is remarkable that the head of that sect at the greatest apparent distance from the church of Rome--Dr. Priestly--who tells us of the incorrelusive reasoning of the apostle Paul, must in that very discovery be supposed (with those who admit it to be such) capable of reasoning better, and therefore of pronouncing, ex cathedra, upon what we ought to reject of the apostle's reasoning. But see *Trinitology*.

INSPIRATION, in physiology, is that action of the breast by which the air is admitted within the lungs; in which sense inspiration is a branch

of respiration, and stands opposed to expiration. This admission of the air depends immediately on its spring or elasticity, at the time when the cavity of the breast is enlarged by the elevation of the thorax and abdomen, particularly by the motion of the diaphragm downwards: so that the air does not enter the lungs, because they are dilated; but these dilate because the air enters within them. See RESPIRATION.

INSPIS'SATE, v. a. Lat. *in* and *spissus*.

INSPISSA'TION, n. s. To thicken: the act of making any liquid thick.

Sugar doth *inspissate* the spirits of the wine, and maketh them not so easy to resolve into vapour.

Bacon.

The effect is wrought by the *inspission* of the air.

Id.

Recent urine will crystallize by *inspission*, and afford a salt neither acid nor alkaline. *Arbuthnot.*

This oil farther *inspissated* by evaporation turns into balm. *Id. on Aliments.*

INSPISSATING, in pharmacy, an operation by which a liquor is brought to a thicker consistence, by evaporating the thinner parts. Thus juices, as that of liquorice, are inspissated.

INSPRU'Ck, or YNNSEBRIGG, a city of Germany, in Austria, the capital of the Tyrol, so named from the Inn, over which there is here a beautiful bridge: and near the town is the confluence of the Inn and Sill. It has a noble castle or palace, formerly the residence of the archdukes of Austria, with a cathedral where they are buried. The chapel erected by Maria Theresa to the memory of her husband is considered a building of considerable taste. In the church of the Franciscans are bronze statuary of all the German emperors. The houses, though built in the German taste, are rather handsome, and the streets, though narrow, remarkably well paved. The fortifications are trifling, but the natural fastnesses of the country form a barrier so perfectly inaccessible to an enemy, that Gustavus Adolphus, after having overrun the other parts of Germany, could never make any impression upon this. In 1672 the emperor Leopold I. converted the gymnasium of the Jesuits into a university, which was enriched by Maria Theresa with two valuable collections of books from the citadel at Ambras, and the imperial library at Vienna. The transit trade from Germany to Italy is here considerable; but in manufactures the only establishment worth noticing is a large cotton-work. The Innthal, or valley in which Innspruck stands, is one of the largest of those formed by the northern Alps; and is also the most picturesque. Its length is about thirty miles; its greatest breadth, as in the neighbourhood of Innspruck, about six miles. Here the Inn is bordered by fields in high cultivation, adorned with different kinds of forest trees, intermixed with villages, and graced at intervals with the ruins of an ancient castle. The back ground is formed by mountains, having on their sides vast forests, while their tops terminate in a mass of precipitous and barren rocks. This was the scene of several heroic efforts of the Tyrolese against the French and Bavarians in 1809. Innspruck is sixty-two miles south of Munich, and eighty-four W.S.W. of Salzburg. Population about 10,000.

INSTABILITY, n. s. Lat. *instabilis*. In-
INSTA'BLE, adj. constancy; fickleness; mutability of opinion or conduct. See UN-
STABLE.

Instability of temper ought to be checked, when it disposes men to wander from one scheme of government to another; such a fickleness cannot but be fatal to our country. *Addison's Freeholder.*

INSTALL', v. a. Fr. *installer*; Lat. in-

INSTALLA'TION, n. s. sta. To advance to rank

INSTAL'MENT, n. s. of office by placing in the

INSTITUTE', v. a. seat or stall proper to that condition; the act of giving visible possession: instalment, the act of installing, or the seat of one installed: instate, to place in a certain rank.

For his possessions,

Although by confiscation they are ours,
We do *instate* and widow you withal.

Shakespeare.

Crammer is returned with welcome,
Installed archbishop of Canterbury. *Id.*

Is it not easy

To make lord William Hastings of our mind,
For the *instalment* of this noble duke.

In the seat royal? *Id. Richard III.*

This kind of conquest does only *instate* the victor in these rights which the conquered prince had.

Hale.

The king chose him master of the horse; after this he was *installed* of the most noble order. *Wotton.*

Had this glistening monster been born to thy poverty, he could not have been so bad; nor, perhaps, had thy birth *instated* thee in the same greatness, wouldest thou have been better. *South.*

Upon the election the bishop gives a mandate for this *installation*. *Ayliffe's Purgeon.*

There five-and-thirty years ago was I

Installed.

Baron. Tragedy. Two Foscari, act 5, sc. 1.

INSTALMENT is derived from the Latin *in*, and *stallum*, a term used for a seat in a church, in the choir, or a seat or bench in a court of justice, &c. Vossius is of opinion the word is of German origin. It is chiefly used for the induction of a dean, prebendary, or other ecclesiastical dignitary, into the possession of his stall, or proper seat, in the cathedral church to which he belongs: sometimes also called installation. It is likewise used for the ceremony by which the knights of the garter are placed in their rank, in the chapel of St. George at Windsor. See GARTER, KNIGHTS OF THE.

INSTANC'E, n. s. & v. n. Fr. *instance*. Im-
INSTANCY, n. s. portunity; solic-
INSTANT, adj. & n. s. tation; motion;
INSTANTA'NEOUS, adj. process of a suit;
INSTANTA'NEOUSLY, adv. example; state of
INSTANTLY, adv. any thing, occa-
sion, or act: instance, to give as an example: instant, urgent; pressing; quick; without delay; a part of duration in which we perceive no succession; a particular time; a day of the present month: instantaneous, and instantaneously, done in an instant, or with the utmost speed: instantly, imminently; without the least delay.

His frendes sent he to, at his *instance*,
And praied hem to don him that plesance
That hastily they wolden to him come.

Chaucer. The Merchant's Tale.

There is scarce an *instant* between their flourishing and their not being. *Hooker.*

'Christian men should much better frame themselves to those heavenly precepts which our Lord and Saviour with so great *instancy* gave us concerning peace and unity, if we did concur to have the ancient counsels renewed.' *Id.*

The *instances* that second marriage move,
Are base respects of thrift, but none of love.
Shakspeare.

Yet doth this accident,

So far exceed all *instance*, all discourse,

That I am ready to distrust mine eyes.' *Id.*

I can at any unseasonable *instant* of the night appoint her to look out at her lady's chamber window.

Id.

Sleep *instantly* fell on me. *Milton.*

Instant without disturb they took alarm. *Id.*

These seem as if, in the time of Edward the First, they were drawn up into the form of a law in the first *instance*. *Hale.*

As to false citations, that the world may see how little he is to be trusted, I shall *instance* in two or three about which he makes the loudest clamour.

Tillotson.

What I had heard of the raining of frogs came to my thoughts, there being reason to conclude that those came from the clouds, or were *instantaneously* generated. *Derham.*

This manner of the beginning or ceasing of the deluge doth not at all agree with the *instantaneous* actions of creation and annihilation.

Burnet's Theory.

On the twentieth *instant* it is my intention to erect a lion's head. *Addison's Guardian.*

The *instance* of a cause is said to be that judicial process which is made from the contestation of a suit, even to the time of pronouncing sentence in the cause, or till the end of three years. *Agilffe.*

The greatest saints are sometimes made the most remarkable *instances* of suffering. *Attberry.*

Suppose the earth should be removed nearer to the sun, and revolve for *instance* in the orbit of Mercury, the whole ocean would boil with heat. *Bentley.*

A soul supreme in each hard *instance* tried

Above all pain, all anger, and all pride. *Pope.*

Words are signs, not copies, of ideas. An idea, for *instance*, may be essentially changed; and the sign that stood for it before may stand for it afterwards, without causing an immediate perception in the mind of this change. *Bolingbroke.*

The rapid radiance *instantaneous* strikes

Thee' illuminated mountain. *Thomson.*

The harvest's treasure all

Now gather in, beyond the rage of storms
Sure to the swain; the circling fence shut up,
And *instant* winter's utmost rage defied. *Id.*

Fair was the blossom, soft the vernal sky:

Elate with hope we deemed no tempest nigh:
When lo! a whirlwind's *instantaneous* gust

Left all its beauties withering in the dust.

Beattie.

Your Commentaries had taught me, that, although the *instance* in which a penal law is exerted be particular, the laws themselves are general.

Juris's Letters.

So

He stood i' the temple! Look upon him as
Greece looked her last upon her best, the *instant*
Ere Paris' arrow flew.

Byron, Deformed Transformed.

Granted at

The *instance* of the elders of the council.

Id. Tragedy, Two Foscari.

INSTEAD' *of*, *prep.* From in and stead, or place. In room of; in place of.

They *instead of* fruit

Chewed bitter ashes. *Milton.*

Vary the form of speech, and *instead of* the word church make it a question in politicks, whether the monument be in danger. *Swift.*

To gaze, *instead of* pavement, upon grass,

And rise at nine in lieu of long eleven.

Byron, Don Juan.

Equal to.

This very consideration to a wise man is *instead of* a thousand arguments, to satisfy him, that, in those times, no such thing was believed. *Tillotson.*

Instead is sometimes used without *of*. In the place; in the room.

He in derision sets

Upon their tongues a various spirit, to rase

Quite out of their native language, and *instead*

To sow a jangling noise of tongues unknown. *Milton.*

INSTEEP', *v. a.* In and steep. To soak, to macerate in moisture. To lay under water.

Suffolk first died, and York, all bagged over,
Comes to him where in gone he lay *insteed*. *Shakspeare.*

The guttered rocks, and congregated sands,
Traitors *insteed* to egle the guiltless keel. *Id.*

INSTEP, *n.s.* In and step. The upper part of the foot where it joins to the leg.

The caliga was a military shoe with a very thick sole, tied above the *instep* with leather thongs. *Arbuthnot on Coins.*

Around, as princess of her father's land,
A like gold bar above her *instep* rolled
Announced her rank. *Byron, Don Juan.*

INSTERBURG, a town and circle of East Prussia, on the Angerap, in the government of Gumbinnen. Its chief trade is in corn and linseed. The circle of this name is of great extent, comprehending a population of 150,000. Part of it is covered with forests; but the soil of the rest is fertile, and the pastures are extensive: manufactures are hardly known here. It is fifty miles east of Konigsberg; and contains 5300 inhabitants.

INSTIGATE, *v. a.* Fr. *instiguer*; Lat. *instigare*.

INSTIGATION, *n.s.* Fr. *stigo*; Italian *instigare*.

INSTIGATOR, *n.s.* To urge to ill; to incite to the commission of crime. Instigation, impulse to vice or violence. Instigator, one who incites to evil.

Be it that thy wife be excellently gode,

That none be bet of disposition.—

In processe of time she might turn hire mode

By some misse-livers *instigacion*.

Chance, Remedy of Love.

Why, what need we

Commune with you of this? But rather follow

Our forceful *instigacion*.

Shakspeare, Winter's Tale.

It was partly by the *instigation* of some factious malcontents that bare principal stroke amongst them. *Bacon.*

The sea of blood is enough to drown in eternal misery the malicious author or *instigator* of its effusion. *King Charles.*

INSTIL' *v. a.* Fr. *instiller*; Span.

INSTILLATION, *n.s.* And Port. *instillar*; Lat.

INSTIL'MENT, *n.s.* Fr. *instillo*. To infuse by

drops; to insinuate; to teach. Instillation, the act of dropping or infusing gradually, whether in a literal or figurative sense. Instilment, the thing infused or instilled.

Though assemblies be had indeed for religion's sake, hurtful nevertheless they may easily prove, as well in regard of their fitness to serve the turn of heretics, and such as privily will soonest adventure to instill their poison into men's minds. *Hooker.*

The leperous *instillment*. *Shakspeare.*
He from the well of life three drops *instilled*. *Milton.*

They imbitter the cup of life by insensible *instillations*. *Rambler.*

Those heathens did in a particular manner *instil* the principle into their children of loving their country, which is far otherwise now-a-days. *Swift.*

How in the noon of night that pibroch thrills,
Savage and shrill. But with the breath which fills
Their mountain-pipe, so fill the mountaineers
With the fierce native daring which *instils*
The stirring memory of a thousand years,
And Evan's, Donald's fame rings in each clausman's
ears. *Byron, Childe Harold.*

INSTINCT, *adj. & n.s.* French *instinct*;

INSTINCT'ED, *adj.* Span. and Port.

INSTINCTIVE, *adj.* *instinto*; Lat. *in-*

INSTINCTIVELY, *adv.* *instictus*. Moved; animated; a word not in use. Instinct, desire or aversion acting in the mind without the intervention of reason or deliberation; the power of determining the will of brutes. Instincted, impressed as an animated power. Instinctive, acting without the application of choice or reason; rising in the mind without apparent cause. Instinctively, by instinct or call of nature.

Thou knowest I am as valiant as Hercules; but beware *instinct*; the lion will not touch the true prince: *instinct* is a great matter. I was a coward on *instinct*: I shall think the better of myself and thee, during my life; I for a valiant lion, and thee for a true prince. *Shakspeare, Henry IV.*

The very rats
Instinctively had quit it. *Id. Tempest.*
Raised

By quick *instinctive* motion, I sprang up.
As thitherward endeavouring. *Milton.*

What native unextinguishable beauty must be
pressed and *instincted* through the whole, which the
degradation of so many parts, by a bad printer and a
worse editor, could not hinder from shining forth.

Bentley's Preface to Milton.

Nature first pointed out my Portius to me,
And easily taught me by her secret force
To love thy person, ere I knew thy merit;
Till what was *instinct* grew up into friendship.

Addison.

The philosopher avers,
That reason guides our deed, and *instinct* theirs.
Instinct and reason how shall we divide? *Prior.*

Reason serves when pressed;

But honest *instinct* conies a volunteer. *Pope.*

It will be natural that Ulysses' mind should forebode; and it appears that the *instinctive* presage was a favourite opinion of Homer's. *Browne.*

Prompted by *instinct*'s never-erring power,
Each creature knows its proper aliment.

Armstrong.

And an immortal *instinct* which redeemed
The frailties of a heart so soft yet bold.

Byron, Childe Harold.

INSTINCT. Instinct is defined, by Bishop Gleig, 'a certain power or disposition of mind,

by which, independent of all instruction or experience, without deliberation, and without having any end in view, animals are unerringly directed to do spontaneously whatever is necessary for the preservation of the individual or the continuation of the kind.' 'Instinct,' says the late lord Monboddo, in his *Ancient Metaphysics*, 'is a determination given by Almighty wisdom to the mind of the brute, to act in such or such a way, upon such or such an occasion, without intelligence, without knowledge of good or ill, and without knowing for what end or purpose he acts.' Such in the human species is the instinct of sucking exerted immediately after birth; and such in the inferior creation is the instinct by which insects invariably deposit their eggs in situations most favorable for hatching and affording nourishment to their future progeny. These operations are necessary for the preservation of the individual and the continuation of the kind; but neither the infant nor the insect knows that they are necessary; they both act without having any end in view, and act uniformly without instruction and without experience.'

Many systems have been adopted to explain the principles which produce and direct the spontaneous actions of brutes. Some of the ancient philosophers ascribed to brutes an understanding different only in degree from that of man, and attributed their inferiority to the want of proper bodily organs. This system has been strenuously supported by M. Helvétius, *De l'Esprit*, tom. i. p. 2, &c. Cudworth endeavoured to explain the instinct of animals by a certain plastic nature. Des Cartes thought that all the actions of brutes might be explained by the simple laws of mechanism, and considered them as machines totally devoid of life and sentiment, but so curiously constructed by the Creator, that the mere impressions of light, sound, and other external agents on their organs, produced a series of motions in them, and caused them to execute those various operations, which had before been ascribed to an internal principle of life and spontaneity. But the actions and manners of brutes, which are totally incompatible with the mere principles of mechanism, evince the absurdity of this opinion. Buffon adopts the opinion of Des Cartes in part, but allows them life, and the faculty of distinguishing between pleasure and pain, together with a strong inclination to the former, and aversion from the latter. By these inclinations and aversions he undertakes to account for all, even the most striking operations of animals. The pre-established harmony of Leibnitz has also been applied to explain the actions of brutes. Others have considered the actions of animals as produced by the constant and immediate influence of the divine energy, directing all their inclinations and motions: such appears to have been the opinion of Addison, in the second volume of the *Spectator*.

Concerning human instincts philosophers differ widely in opinion; some maintaining that man is endowed with a greater number of instincts than any species of brutes; whilst others deny that in human nature there is any power or propensity at all which can properly be called

instinctive. ‘**T**HIS diversity of opinion,’ says Dr. Gleig, ‘may easily be traced to its source. There are not many original thinkers. The greater part of even those who are called philosophers implicitly adopt the opinions of certain masters whose authority they deem sufficient to supply the place of argument; and, having chosen their respective guides, each maintains with zeal what his master taught, or is supposed to have taught. When Locke so successfully attacked the doctrine of innate ideas, and innate principles of speculative truth, he was thought by many to have overturned at the same time all innate principles whatever; to have divested the human mind of every passion, affection, and instinct; and to have left in it nothing but the powers of sensation, memory, and intellect. Such, we are persuaded, was not his intention; nor is there any thing in his immortal work which, when interpreted with candor, appears to have such a tendency. Great part of his *Essay on Human Understanding* has been very generally misunderstood. Much of its merit, however, was soon discovered; and mankind, finding philosophy disengaged from the barbarous jargon of the schools, and built upon a few self-evident principles, implicitly embraced every opinion advanced, or which they supposed to be advanced, by that illustrious author; especially if that opinion was contrary to any part of the scholastic system, which had so long been employed to perplex the understanding, and to veil absurdity. Hence arose many philosophers of eminence, both at home and abroad, who maintained, as they imagined, upon the principles of Locke, that in the human mind there are no instincts, but that every thing which had been usually called by that name is resolvable into association and habit. This doctrine was attacked by Lord Shaftesbury, who introduced into the theory of mind, as faculties derived from nature, a sense of beauty, a sense of honor, and a sense of ridicule: and these he considered as the tests of speculative truth and moral rectitude. His lordship’s principles were in part adopted by Mr. Hutchison of Glasgow, who published a system of moral philosophy, founded upon a sense of instinct, to which he gave the name of the moral sense; and the undoubted merit of his work procured him many followers.—It being now discovered, or at least supposed, that the human mind is endowed with instinctive principles of action, a sect of philosophers soon arose, who maintained, with much vehemence, that it is likewise endowed with instinctive principles of belief; and who built a system of metaphysics, if such it may be called, upon a number of innate, distinct, and independent senses. The rise of this sect is well known. Berkeley and Hume had adopted Locke’s doctrine respecting the origin of our ideas; and had thence deduced consequences supposed to be dangerous in themselves, but which it was thought could not be denied without refusing the principles from which they were inferred. The foundation of the instinctive system being thus laid, the system itself was rapidly carried to a height far beyond what seems to have been the intention of its excellent author; and reason was

well nigh banished from the regions of philosophy. For such a proceeding it is not difficult to assign the cause. The instinctive scheme requires much less labor of investigation than the systems of Locke and the ancients; for upon the principles of it, when carried to its utmost extent, every phenomenon in human nature is thought to be sufficiently accounted for, by supposing it the effect of a particular instinct implanted in the mind for that very purpose. Hence, in some popular works of philosophy, we have a detail of so many distinct internal senses, that it requires no small strength of memory to retain their very names; besides the moral sense, we have the sense of beauty, the sense of deformity, the sense of honor, the hoarding sense, and a number of others, which it is needless here to mention. This new system, which converts the philosophy of mind into mere history, or rather into a collection of facts and anecdotes, though it has made a rapid progress, is not yet universally received. It has been opposed by many speculative men, and by none with greater skill than Dr. Priestley; who maintains, with the earliest admirers of Locke, that we have from nature no innate sense of truth, nor any instinctive principle of action; that even the action of sucking in new-born infants is to be accounted for upon principles of mechanism; and that the desire of the sexes is merely association.

Dr. Gleig proceeds to enquire, ‘Whether or not there be instinctive principles in man?’ ‘But,’ he adds, ‘in order to proceed upon sure grounds, it will be proper to consider, first, such actions of the inferior animals as are generally allowed to be instinctive: for an attempt has been lately made to prove, that even these actions are the offspring of reason influenced by motives; and that instinct, as above defined, is a mere imaginary principle, which has no existence either in man or brute. Caterpillars, it is said, when shaken off a tree in every direction, instantly turn round towards the trunk and climb up, though they had never formerly been on the surface of the ground. This is a striking instance of instinct. On the tree, and not upon the ground, the caterpillar finds its food. If, therefore, it did not turn and climb up the trunk, it would inevitably perish; but surely the caterpillar knows not that such an exertion is necessary to its preservation; and therefore it acts not from motives, but from blind impulse. The bee and the beaver are endowed with an instinct which has the appearance of foresight. They build magazines, and fill them with provisions but the foresight is not theirs. Neither bees nor beavers know any thing of futurity. The solitary wasp digs holes in the sand, in each of which she deposits an egg. Though she certainly knows not that an animal is to proceed from that egg, and still less, if possible, that this animal must be nourished with other animals, she collects a few small green worms, which she rolls up in a circular form, and fixes in the hole in such a manner that they cannot move. When the wasp-worm is hatched, it is amply stored with the food destined for its support. The green worms are devoured in succession; and

the number deposited is exactly proportioned to the time necessary for the growth and transformation of the wasp-worm into a fly; when it issues from the hole, and is capable of procuring its own nourishment. This instinct of the parent wasp is the more remarkable, that she feeds not upon flesh herself. Birds of the same species, unless restrained, uniformly build their nests of the same materials, and in the same form and situation, though they inhabit very different climates; and the form and situation are always suited to their nature, and calculated to afford them shelter and protection. When danger, or any other circumstance peculiar to certain countries, renders a deviation from the common form or situation of nests necessary, that deviation is made in an equal degree, and in the very same manner, by all the birds of one species; and it is never found to extend beyond the limits of the country where alone it can serve any good purpose. When removed by necessity from their eggs, birds return to them with haste and anxiety, and shift them so as to heat them equally; and it is worthy of observation that their haste to return is always in proportion to the cold of the climate. But do birds reason, and all of the same species reason equally well, upon the nature and extent of danger, and upon the means by which it can be best avoided? Have birds any notion of equality, or do they know that heat is necessary for incubation? No: in all these operations men recognize the intentions of nature; but they are hid from the animals themselves, and therefore cannot operate upon them as motives.

One instance of the mathematical skill displayed in the structure of a honeycomb, deserves to be mentioned. It is a curious mathematical problem, at what precise angle the three planes which compose the bottom of a cell ought to meet, in order to make the greatest possible saving of material and labor. This is one of those problems belonging to the higher parts of mathematics, which are called problems of maxima and minima. The celebrated M'Laurin resolved it by a fluxional calculation, which is to be found in the Transactions of the Royal Society of London, and determined precisely the angle required. Upon the most exact mensuration which the subject could admit, he afterwards found, that it is the very angle in which the three planes in the bottom of the cell of a honey-comb do actually meet. Shall we ask here, Who taught the bees the properties of solids, and to resolve problems of maxima and minima? If a honey-comb were a work of human art, every man of common sense would conclude, without hesitation, that he who invented the construction must have understood the principles on which it was constructed. We need not say that bees know none of these things. They work most geometrically without any knowledge of geometry; somewhat like a child, who, by turning the handle of an organ, makes good music without any knowledge of music. The art is not in the child, but in him who made the organ. In like manner, when a bee makes its combs so geometrically, the geometry is not in the bee, but in that Great Geometrician who made the bee, and

made all things in number, weight, and measure. On the whole, it is evident, that the structure of a honey-comb is an effect of instinct which cannot be confounded with the operations of reason. But, on the other hand, we agree with Mr. Locke, that 'if brutes have any ideas at all, and are not mere machines, as some would have them, we cannot deny them to have some reason.' Yet, that animals have no power of enlarging their ideas, is a position, of the truth of which, though advanced by Locke, we have great doubts. It is well known that crows feed upon several kinds of shell fish when within their reach; and that they contrive to break the shell by raising the fish to a great height, and letting it drop upon a stone or a rock. This may perhaps be considered as pure instinct directing the animal to the proper means of acquiring its food. But what is to be thought of the following fact, which was communicated to the editors of the Encyclopaedia Britannica, 'by a gentleman whose veracity,' they say, 'is unquestioned, and who, being totally unacquainted with the theories of philosophers, has of course no favorite hypothesis to support?' In spring, 1791, a pair of crows made their nest in a tree, of which there are several planted round his garden; and in his morning walks he had often been amused by witnessing furious combats between them and a cat. One morning the battle raged more fiercely than usual, till at last the cat gave way and took shelter under a hedge, as if to wait a more favorable opportunity of retreating to the house. The crows continued for a short time to make a threatening noise; but, perceiving that on the ground they could do nothing more than threaten, one of them lifted a stone from the middle of the garden, and perched with it on a tree planted in the hedge, where she sat watching the motions of the enemy of her young. As the cat crept along under the hedge, the crow accompanied her by flying from branch to branch, and from tree to tree: and when at last puss ventured to quit her hiding place, the crow, leaving the trees and hovering over her in the air, let the stone drop from on high on her back. That the crow, on this occasion, reasoned, is self-evident; and it seems to be little less evident, that the ideas employed in her reasoning were enlarged beyond those which she had received from her senses. By her senses she might have perceived that the shell of a fish is broken by a fall: but could her senses inform her, that a cat would be wounded or driven off the field by the fall of a stone? No: from the effect of the one fall preserved in her memory, she must have inferred the other by her power of reasoning.'

Having, by the above and other arguments, proved that there is such a principle as instinct in the inferior animals, and that it is essentially different from human reason, Dr. Gleig returns to our own species, and enquires, 'Whether there be any occasions upon which man acts instinctively, and what those occasions are? This, says he, is a question of some difficulty, to which a complete and satisfactory answer will perhaps never be given. The principle of association (see METAPHYSICS) operates so power-

fully in man, and at so early a period of life, that in many cases it seems to be impossible to distinguish the effects of habit from the operations of nature. Yet there are a few cases, immediately connected with the preservation of the individual and the propagation of the kind, in which, by a little attention, these things may be distinguished. We have already given an instance in the sucking of a child, which we believe to be an operation performed by instinct. Dr. Priestley, however, thinks differently; the action of sucking, says he, I am confident, from my own observations, is not natural, but acquired. What observations they were which led him to this conclusion he has not told us, and we cannot imagine; but every observation which we ourselves have made compels us to believe that an attempt to suck is natural to children. It has been observed, by Mr. Smellie, that the instinct of sucking is not excited by any smell peculiar to the mother, to milk, or to any other substance; for that infants suck indiscriminately every thing brought into contact with their mouths. He therefore infers, that the desire of sucking is innate, and co-eval with the appetite for air. The observation is certainly just: but a disciple of Dr. Priestley's may object to the inference; for 'in sucking and swallowing our food, and in many such instances, it is exceeding probable, says the Dr., that the actions of the muscles are originally automatic, having been so placed by our Maker, that at first they are stimulated, and contract mechanically whenever their action is requisite.' This is certainly the case with respect to the motion of the muscles in the action of breathing; and if that action be of the same kind, and proceed from the very same cause with the action of sucking, and if a child never show a desire to suck but when something is brought into contact with its mouth, Dr. Priestley's account of this operation appears to us much more satisfactory than that of the authors who attribute it to instinct. But the actions of breathing and sucking differ essentially in several particulars. They are indeed both performed by means of air; but, in the former, a child for many months exerts no spontaneous effort, whilst a spontaneous effort seems to be absolutely necessary for the performance of the latter. Of this indeed we could not be certain, were it true that infants never exhibit symptoms of a wish to suck, but when something is actually in contact with their mouths; for the mere act of sucking then might well be supposed to be automatic and the effect of irritation. But this is not the case. A healthy and vigorous infant, within ten minutes of its birth, gives the plainest and most unequivocal evidence of a desire to suck, before any thing be brought into actual contact with its mouth. It stretches out its neck, and turns its head from side to side, apparently in quest of something; and that the object of its pursuit is something which it may suck, every man may satisfy himself by a very convincing experiment. When an infant is thus stretching out its neck and moving its head, if any thing be made to touch any part of its face, the little creature will instantly turn to the object, and endeavour by quick alternate

motions from side to side to seize it with its mouth, in the very same manner in which it always seizes the breast of its nurse, till, taught by experience to distinguish objects by the sense of sight, when these alternate motions, being no longer useful, are no longer employed. If this be not an instance of pure instinct, we know what it is. It cannot be the result of association or mechanism; for, when the stretching of the neck takes place, nothing is in contact with the child's mouth, and no association which includes the act of sucking can have been formed. Associations of ideas are the consequence of simultaneous impressions frequently repeated; but when the child first declares, as plainly as it could do were it possessed of language, its wish to suck, it has not received a single impression with which that wish can possibly be associated. The greater part of those actions, as well as of the apparently instinctive principles of belief, we have no doubt, are acquired; but we are persuaded that a child sucks its nurse, as a bee builds its cell, by instinct; for upon no other hypothesis can we account for the spontaneous efforts exerted in both these operations; and we think it no disgrace to our species, that in some few cases we should act from the same principle with the inferior creation, as nothing seems more true than that,

—Reason raise o'er instinct as we can;
In this 'tis God that works, in that 'tis man.

IN'STITUTE, v. a. & n.s. Fr. *instituer*; INSTITUTION, n.s. Lat. *instituo*. To INSTITUTIONARY, adj. fix; establish; settle; INSTITUTOR, n.s. INSTITUTIST, n.s. to educate or instruct; the leading idea is to build upon. Institute, established law; settled order; precept; maxim; example. Institution, act of establishing; a positive law; education. Institutionary, elementary; containing first principles. Institutor, an instructor; one who establishes an institution. Institutist, a writer of elemental instructions.

The *institution* of God's law is described as being established by solemn injunction. *Hooker.*

Here let us breathe, and haply *institute*
A course of learning, and ingenuous studies. *Shakspeare*

Green gall the *institutists* would persuade us to be an effect of an over-hot stomach. *Harvey on Consumption.*

That it was not out of fashion Aristotle declareth in his politics, among the *institutionary* rules of youth. *Browne.*

If children were early *instituted*, knowledge would insensibly insinuate itself. *Decay of Piety.*

It might have succeeded a little better, if it had pleased the *institutors* of the civil months of the sun to have ordained them alternately odd and even. *Holder on Time.*

The theocracy of the Jews was *instituted* by God himself. *Temple.*

They quarrel sometimes with the execution of laws, and sometimes with the *institution*. *Id.*

This law, though custom now directs the course, As nature's *institute*, is yet in force. *Dryden.*

Uncancelled, though disused. *F 2*

what in their youth, that may honestly entertain them in their age.

L'Estrange.

The holiness of the first fruits and the lump is an holiness merely of *institution*, outward and nominal; whereas the holiness of the root is an holiness of nature, inherent and real.

Attterbury.

His learning was not the effect of precept or *institution*.

Bentley.

To *institute* a court and country party without materials, would be a very new system in politics.

Swift.

The certain feasts are *instituted* now,
Where Venus hears the lover's vow.

Couper. Conversation.

Our *institutions* and our strong belief
Have given me power to smooth the path from sin
To higher hope and better thoughts.

Byron's Manfred.

INSTITUTE, or INSTITUTION, in literature, is a term applied to establishments for the promotion of science generally, and was first given to the French *National Institute*, founded in December 1795. That nation, at the time of the Revolution, having conceived a hatred to every thing royal, abolished the seven Royal Academies, and substituted the National Institute. It was first opened the 7th of December, when Benezech, the then minister for the home department, attended, and the decree of foundation was read; which was to the following purport:—‘The Academy of Arts and Sciences belongs to the republic, and Paris is its place of residence. Its employment is to aim at bringing all arts and sciences to the utmost perfection of which they are capable. It is to notice every new attempt, and all new discoveries, and to keep up a correspondence with all foreign literary societies. And, by the particular orders of the Executive Directory, its first studies are to be directed to those subjects which more immediately tend to the reputation and advantage of the French republic.’ The academy is to consist of 288 members, half of whom are to reside in Paris, the other half in the departments; and to them is to be added a certain number of foreigners, as honorary members, confined at present to twenty-four. The academy is divided into three classes, each class into sections, each section to contain twelve members. First class, mathematics and natural philosophy. This class is divided into ten sections. 1. Mathematics; 2. Mechanical arts; 3. Astronomy; 4. Experimental Philosophy; 5. Chemistry; 6. Natural history; 7. Botany; 8. Anatomy and animal history; 9. Medicine and surgery; 10. Animal economy, and the veterinary science. Second class, morality and polities. This class consists of six sections. 1. Analysis of sensations and ideas; 2. Morals; 3. Legislature; 4. Political economy; 5. History; 6. Geography. Third class, literature and the fine arts. This class consists of eight sections. 1. Universal grammar; 2. Ancient languages; 3. Poetry; 4. Antiquities; 5. Painting; 6. Sculpture; 7. Architecture; 8. Music. For each class a particular room in the Louvre is appropriated. No one can be a member of two classes at the same time; but a member of one class may be present at the meetings of any other. Each class is to print, yearly, an account of its transactions. Our times a year there are to be public meetings.

On these occasions, the three classes meet together. At the end of each year, they are to give a circumstantial account to the legislative body of the progress made in that year in the arts and sciences. The prizes given yearly by each class are to be publicly notified at certain times. The sums requisite for the support of the institution are to be decreed yearly by the legislative body, upon a requisition made by the executive directory. The first forty-eight members were chosen by the executive directory, to whom the choice of the remaining members was confided. To the members resident in Paris is reserved the choice both of the department and the foreign members. On a vacancy in any class, three candidates are named by the class for the choice of the body at large. Each class is to have, at its place of meeting, a collection of the products, both of nature and art, and a library, according to its particular wants. The regulations of the institution, with respect to the times of meeting and its employments, are to be drawn up by the body at large, and laid before the legislative assembly. On the restoration of the house of Bourbon, every thing royal was restored, and the National Institute was reconverted to a Royal Academy. Still, however, the same objects are pursued.

The French National Institute appears to have given rise to ‘The Royal Institution of Great Britain,’ founded in 1799 by the celebrated count Rumford, and which is situated in Albemarle Street, Piccadilly. The establishment is upon a magnificent plan, and the building adapted to the design. It comprises, a reading room for English and foreign newspapers; a library for reference, and another for the reading of modern publications; a museum of curiosities; a mechanical repository for machinery, &c.; a chemical laboratory on a grand scale, the learned Mr. Brande being the chemical professor; and, lastly, a splendid amphitheatre for lectures, which will hold 700 persons, with a gallery capable of holding 200 more. The number of proprietors was 400, who are life-holders and subscribers. This society is incorporated, and prints its Transactions in a quarterly publication. Its members are authorised to add to their names the initials M.R.I.

INSTITUTE, in Scottish law. When by disposition or deed of entail a number of persons are called to the succession of an estate one after another, the person first named is called the institute, the others substitutes.

INSTITUTES, in literary history, a book containing the elements of the Roman law. The institutes are divided into books; and contain an abridgement of the whole body of the civil law, being designed for the use of students. See LAW.

INSTITUTION, LONDON. See LONDON.

INSTITUTION, AFRICAN. See AFRICAN INSTITUTION.

INSTITUTION, in the canon and common law, signifies the investing a clerk with the spiritualities of a rectory, &c., which is done by the bishop, who uses the following formula:—‘I institute you rector of such a church with the cure of souls, and receive your cure and mire.’

Before the clerk is instituted he must subscribe the thirty-nine articles in the presence of the ordinary, or his substitute; this subscription must also be without reserve, exception, or qualification; otherwise his institution is *ipso facto*, void and null, and the church still vacant. 13 Eliz. c. 12. At the same time the ordinary requires the clerk to subscribe the other two articles mentioned in the thirty-sixth canon about the king's supremacy, and the lawfulness and use of the liturgy. Before institution he must also take the oaths mentioned in the first statute of William and Mary, c. 8, instead of the former oaths of allegiance and supremacy, required by stat. 1 Eliz.; and then he must take the oath against simony, enjoined by the fortieth canon, and the oath of canonical obedience; and, if it is a vicarage, the oath of personal residence; and he is to have certificates given him of his subscribing the declaration contained in the act of uniformity, in English, in a distinct instrument, under the hand and seal of the bishop; and of his other subscriptions and oaths, in Latin.

The church, by institution, is full against all persons but the king, but it is not full against the king, till induction; and the clerk by it may enter upon the parsonage house and glebe, and take the tithes; but he cannot let or grant them, nor sue for them, if they be refused to be paid, till he be induced. See *INDUCTION*.

INSTOP', *v. a.* In and stop. To close up; to stop.

With boiling pitch another near at hand
The seams *instops*. *Dryden's Ann. Mireb*

INSTRUCT', *v. a.* Fr. *instruire*; Lat. **INSTRU'CTOR**, *n. s.* *instruere*. To teach; to **INSTRUCTION**, *n. s.* form by precept; to **INSTRUCTIVE**, *adj.* form authoritatively; to educate; to institute; to direct. It has commonly *in* before the thing taught: instructor, a teacher; one who imparts knowledge: instruction, the act of teaching; information; knowledge; mandates: instructive, conveying knowledge.

Out of heaven he made thee to hear his voice, that he might *instruct* thee. *Deuteronomy iv. 36.*

See this dispatched with all the haste thou canst;

Anon I'll give thee more *instruction*. *Shakspeare*.

The father of the faithful there did dwell
Who both their parent and *instructor* was. *Denham's Progress of Learning*.

O thou, who future things can't represent
As present, heavenly *instructor*! *Milton*.

Instruct me, for thou knowest. *Id.*

Poets, the first *instructors* of mankind,
Brought all things to their native proper use. *Roscommon*.

With variety of *instructive* expressions by speech
man alone is endewed. *Holder*.

They speak to the merits of a cause, after the proctor has prepared and *instructed* the same for a hearing before the judge. *Ayliffe*.

I would not laugh but to *instruct*; or, if my mirth ceases to be *instructive*, it shall never cease to be innocent. *Addison*.

Several *instructors* were disposed amongst this little helpless people. *Id.*

We have precepts of duty given us by our *instructors*. *Rogers*.

Emblem *instructive* of the virtuous man,
Who keeps his tempered mind serene and pure,
And every passion aptly harmonized,
Amid a jarring world with vice inflamed.

Thomson.

Instructive satire, true to virtue's cause!
Thou shining supplement of public laws.

Young.

Thy lips have shed *instruction* as the dew,
Taught me what path to shun, and what pursue.

Couper. Charity

INSTRUMENT, *n. s.* Fr. *instrument*,

INSTRUMENTAL, *adj.* Latin *instrumentum*

INSTRUMENTALITY, *n. s.* *tum*. A tool used

INSTRUMENTALLY, *adv.* for work; a frame

INSTRUMENTALNESS, *n. s.* constructed for yielding harmonious sounds; a writing containing contract or order: used of persons, as agents, and often in a bad sense: that by means of which something is done; one who acts for another: instrumental, conducive to; helpful; not vocal: instrumentality, subordinate agency: instrumentally, in a manner conducive to an end: instrumentality, usefulness to a definite purpose.

If he smite him with an *instrument* of iron, so that he die, he is a murderer. *Numbers xxxv. 16.*

So ferforth this thing is went,
That my will was his will's *instrument*;
That is to say, my will obeyed his will
In all things. *Chaucer. The Squieres Tale*.

These olde gentil Bretons, in hir dayes.
Of diverse aventures maden layes
Rimeyed in hir firste Breton tonge;
Which layes with hir *instruments* they songe,
Or elles redea hem for hir plesence.

Id. Prologue to the Frankeleines Tale.

The joyous birdes shrouded in chearefull shade
Their notes unto the voice attempred sweet;
The angelical soft trembling voices made
To the *instruments* divine respsonde meet.
The silver sounding *instruments* did meet
With the base murmur of the water's fall;
The water's fall, with difference discreet,
Now soft, now loud, unto the wurd did call;
The gentle warbling wind low answered to all.

Spenser. Faerie Queene.

They which, under pretence of the law ceremonial abrogated, require the abrogation of *instrumental* music, approving nevertheless the use of vocal melody to remain, must shew some reason, wherefore the one should be thought a legal ceremony and not the other. *Hooker*.

All the *instruments* which aided to expose the child, were even then lost when it was found.

Shakspeare.

If, haply, you my father do suspect,
An *instrument* of this your calling back,
Lay not your blame on me. *Id. Othello*.

All second and *instrumental* causes, without that operative faculty which God gave them, would become altogether silent, virtueless, and dead.

Raleigh.

The *instrumentalness* of riches to works of charity, has rendered it very political, in every Christian commonwealth, by laws to settle and secure property. *Hammond*.

Prayer, which is *instrumental* to every thing, hath a particular promise in this thing. *Taylor*.

In solitary groves he makes his moan,
Nor mixed in mirth, in youthful pleasure shares,
But sighs when songs and *instruments* he hears.

Dryden.

Sweet voices, mixt with *instrumental* sounds,
Ascend the vaulted roof, the vaulted roof rebounds.

Id.

In benefits, as well as injuries, it is the principal
that we are to consider, not the *instrument*; that
which a man does by another is in truth his own act.

L'Estrange.

Box is useful for turners and *instrument* makers.
Mortimer.

Habitual preparation for the sacrament consists
in a standing permanent habit, or principle of holiness,
wrought chiefly by God's spirit, and *instrumentally* by his word, in the heart or soul of man.

South.

I discern some excellent final causes of conjunction
of body and soul: but the *instrumental* I know
not, nor what invisible bands and fetters unite them
together. *Bentley.*

The Presbyterian merit is of little weight, when
they allege themselves *instrumental* towards the
restoration. *Swift.*

An *instrument*, whose chords upon the stretch,
And strained to the last screw that he can bear,
Yield only discord in his Maker's ear.

Cowper. Truth.

INSTRUMENTS, MUSICAL. See **MUSIC.**

INSUBRES, INSUBRI, or **ISOMBRES**, the ancient inhabitants of Insubria, a people of Gallic origin, who were conquered by the Romans, and their country made into a province.

INSUBRIA, or **INSUBRUM AGER**, in ancient geography, a district of Gallia Transpadana; situated between the Ticinus on the west, the Addua on the east, the Padus on the south, and the Orobii on the north.

INSUF'FERABLE, adj. Lat. *iu* and *suf-*
INSUF'FERABLY, adv. *fiero.* Not to be borne; intolerable; beyond endurance; detestable; contemptible to an extreme degree: used both in a good and bad sense.

How shall we behold the face
Henceforth of God or angel, erst with joy
And rapture so oft beheld! those heavenly shapes
Will dazzle now this earthly with their blaze
Insuflably bright. *Milton's Paradise Lost.*

The one is oppressed with constant heat, the other
with *insufferable* cold. *Broune's Vulgar Errors.*

Eyes that confessed him born for kingly sway,
So fierce, they flashed *insufferable* day. *Dryden.*

Though great light be *insufferable* to our eyes, yet
the highest degree of darkness does not at all disease
them; because that, causing no disorderly motion,
leaves that curious organ unharmed. *Locke.*

There is no person remarkably ungrateful, who
was not also *insufferably* proud. *South.*

INSUFFICIENCY, n. s. Fr. *insuffisience* ;
INSUFFICIENCY, n. s. Lat. *iu* and *sufficit.*

INSUFF'ICIENT, adj. Inadequateness to

INSUFF'ICIENTLY, adv. any end or purpose;
want of requisite value or power; used of things and persons: unequal to the task: want
of proper ability: in an unskilful manner.

Hold ye, then, me, or elles our covet

To pray for you been *insufficient!*

Chaucer. The Somounours Tale.

The bishop, to whom they shall be presented, may
justly reject them as incapable and *insufficient*.

Spenser.

The minister's aptness or *insufficiency*, otherwise
than by reading to instruct the flock, standeth in
this place as a stranger, with whom our form of
common prayer hath nothing to do. *Hooker.*

We will give you sleepy cranks, that your senses,
unintelligent of our *insufficiency*, may, though they
cannot praise us, as little accuse us. *Shakspeare.*

Fasting kills by the bad state, or by the *insufficient*
quantity of fluids. *Arbuthnot on Aliments.*

We are weak, dependant creatures, *insufficient* to
our own happiness, full of wants which of ourselves
we cannot relieve, exposed to a numerous train of
evils which we know not how to divert. *Rogers.*

INSUFFLATION, n. s. Lat. *iu* and *sufflo.*
The act of breathing upon.

Imposition of hands is a custom of parents in
blessing their children, but taken up by the apostles
instead of that divine *insufflation* which Christ
used. *Hammond's Fundamentals.*

INSULAR, adj. Fr. *insulaire* ; Lat. *in-*

IN'SULARY, adj. *isula.* Belonging to an *is-*

IN'SULATED, adj. Land: insulated, not con-
tinuous on any side.

Drina, being surrounded by the sea, is hardly
to be invaded, having many other *insular* advan-
tages. *Howel.*

Their loves, and feasts, and house, and dress, and
mode

Of living in their *insular* abode.

Byron. Don Juan.

Look again!

Two forms are slowly shadowed on my sight,

Two *insulated* phantoms of the brain.

Byron. Childe Harold.

INSULATED, in architecture, an appellation given to such columns as stand alone.

INSULATED, in electrical experiments. When
any body is prevented from communicating with
the earth, by the interposition of an electric
body, it is said to be insulated. See **ELECTRICITY.**

INSULSE', adj. Lat. *insulsus.* Dull; insipid; heavy.

INSULT, n. s. & v. a. Fr. *insulter* ; Lat.
INSULTER, n. s. *insulto.* The act of *insult*.

INSULT'INGLY, adv. Leaping upon any thing. In this sense it has the accent on the last syllable: the sense is rare. An act or speech of insolence or contempt: insult, to treat with insolence; sometimes used with the preposition *over*; to trample upon in triumph: insulter, one who acts insultingly, or in a contemptuous way.

The bulls *insult* at four she may sustain,
But after ten from nuptial rights refrain.

Dryden.

Insultingly, he made your love his boast,
Gave me my life, and told me what it cost. *Id.*

So 'scapes the *insulting* fire his narrow jail,
And makes small outlets into open air. *Id.*

Even man, the merciless *insulter* man,
Man, who rejoices in our sex's weakness,
Shall pity thee. *Rome's Jane Shore.*
The ruthless sneer that *insult* adds to grief.

Savage.

The poet makes his hero, after he was glutted by
the death of Hector, and the honour he did his
friend by *insulting* over his murderer, to be moved
by the tears of king Priam. *Pope.*

Take the sentence seriously, because railieries are
an *insult* on the unfortunate.

Broome on the Odyssey.

Death! was I not the sovereign of the state,
Insulted on his very throne, and made

A mockery to the men who should obey me?

Byron. Marino Faliero.

Were weighed i' the balance, 'gainst the foulest stain,

The grossest *insult*, most contemptuous crime
Of a rank, rash patrician—and found wanting! *Id.*

INSUPERABILITY, *n. s.* Lat. *in* and
INSUPERABLE, *adj.* *supero*. That
INSUPERABleness, *n. s.* which cannot
INSUPERABLY, *adv.* be overcome or surmounted: beyond the power of conquest.

This appears to be an *insuperable* objection, because of the evidence that sense seems to give it.

Digby on Bodies.

Much might be done, would we but endeavour; nothing is *insuperable* to pains and patience. *Ray.*

Between the grain and the vein of a diamond there is this difference, that the former furthers, the latter, being so *insuperably* hard, hinders the splitting of it. *Grew's Museum.*

And middle natures how they long to join,

Yet never pass the *insuperable* line. *Pope.*

INSUPPORTABLE, *adj.* Lat. *in subporto*.
INSUPPORTABleness, *n. s.* Not to be endured;
INSUPPORTABLY, *adv.* Ed; a state of suffering beyond endurance.

But safest he who stood aloof,

When *insupportably* his foot advanced;

In scorn of their proud arms, and warlike tools,
Spurned them to death by troops.

Milton's Agomistes.

Then fell she to so pitiful a declaration of the *insupportableness* of her desires, that Dorus's ears procured his eyes with tears to give testimony how much they suffered for her sufferings. *Sidney.*

The thought of being nothing after death is a burden *insupportable* to a virtuous man; we naturally aim at happiness, and cannot bear to have it confined to our present being. *Dryden.*

The first day's audience sufficiently convinced me, that the poem was *insupportably* too long. *Id.*

A disgrace put upon a man in company is *insupportable*; it is heightened according to the greatness and multiplied according to the number of the persons that hear. *South.*

To those that dwell under or near the equator, this spring would be a most pestilent and *insupportable* summer; and, as for those countries that are nearer the poles, a perpetual spring will not do their business. *Bentley.*

Were it not for that rest which is appointed on the first day of the week, and the solemn meetings which then take place for the purposes of social worship and religious instruction, the labours of the common people, that is of the greatest part of mankind, would be *insupportable*. *Beattie.*

INSURANCE and **ASSURANCE**, in mercantile language, are terms used synonymously: under the latter we have treated of assurances on lives, and referred to **MARINE INSURANCE** for that important branch of mercantile affairs. It remains only for us to attend in this place to the subject of insurance against fire.

This is a mode of providing against what might otherwise prove a ruinous contingency of human life, peculiar, of course, to a state of high civilization. The period of its first introduction into this country has not been correctly ascertained: but our oldest, which are amongst the most respectable fire offices, bear date (with the exception of the Hand in Hand, which was incorporated in 1696) in the early part of the eighteenth century. The oldest fire office in Paris is said to have commenced business so late as 1745. In Holland, though these institutions are not unknown,

they are said to be little resorted to; and yet the number of fires in Amsterdam is represented as far less in proportion than in London.

In this metropolis, and in different parts of the kingdom, are various companies, each of which has a large capital funded, for the purpose of insuring from loss or damage by fire, buildings, furniture, goods in trade, merchandise, farming stock, ships in port, harbour, or dock, the cargoes of such ships, ships building or repairing, vessels on rivers and canals, the goods on board such vessels, &c. These articles are commonly divided into three classes:—1. Common assurances, which are effected at 2s. per cent. per annum, up to £1000; 2. Hazardous assurances, at 3s. per cent. per annum; and, 3, doubly hazardous, at 5s. per cent. per annum. The mode of classification, and more detailed particulars, may be learnt from the proposals of the most respectable companies; which are—Hand in Hand Fire Office, incorporated in 1696; Sun Fire Office, incorporated in 1706; Union Fire Office, incorporated in 1714; Westminster Fire Office, incorporated in 1717; Royal Exchange Assurance Company, incorporated in 1719; London Assurance, incorporated in 1719; Phoenix Fire Office, established in 1782; Imperial Insurance Company, 1803; Globe Insurance Office, 1803; Albion, 1805; Hope, 1807; Eagle, 1807; Atlas, 1808: besides various extensive companies in the country; as in Kent, Norfolk, &c.

In 1782 a duty of 1s. 6d. was imposed on every £100 assured from loss by fire, which was increased in 1797 to 2s. per cent., in 1804 to 2s. 6d. per cent., and since that period to 3s. From the produce of this duty an estimate has been formed of the total amount of property assured from fire in Great Britain, which appears to have been nearly as follows:—

In 1785	.	.	.	£125,000,000
1789	.	.	.	142,000,000
1793	.	.	.	167,000,000
1797	.	.	.	184,000,000
1801	.	.	.	223,000,000
1806	.	.	.	260,000,000
1810	.	.	.	305,000,000

The duty paid in this last year was thus contributed by the different offices:—

Duty paid on Fire Insurance in 1810.			
	£.	s.	d.
Sun	93,867	16	10
Phoenix	57,709	4	10
Royal Exchange	45,067	12	10
Imperial	35,346	14	6
Globe	27,353	10	6
British	16,695	5	5
Hope	15,878	7	8
Albion	15,683	8	11
County	13,664	5	4
Westminster	12,054	13	10
Hand in Hand	11,505	12	9
Eagle	11,355	12	3
Atlas	9,815	9	6
London	9,312	17	4
Union	5,847	18	3

The legal effect of the contracts of these societies is altogether regulated by the terms of them respectively, and each person on entering becomes voluntarily a party to the rules of the society. Speaking generally, a very high feeling of honor and liberality pervades the conduct of these bodies, who, we fear, are far more often ‘sinned against than sinning,’ in respect to their business. But some curious cases of claims occur in the law books.

The Sun, inserting the terms ‘civil commotion’ as an exception to the cases of fire against which they insured, resisted the claim of Mr. Langdale, in 1780, for a fire occasioned by the riots of that year and the court held them exempt from paying it. Yet there is a case where (2 Wils. 363.) the London Assurance paid a claim for a fire occasioned by a mob; only they use the terms ‘military or usurped power.’

In case of loss occurring the insured is bound by most of the proposals of the societies, and ought, in all cases, to give immediate notice of the event, and as particular an account of the value, &c., as the nature of the case will admit. He must also generally produce a certificate of the minister and churchwardens as to his character, their belief of the loss sustained, and the truth of what he advances. If a policy of insurance from fire refer to certain printed proposals, the proposals will be considered as part of the policy.

Insurance ‘against all the damages which the plaintiffs should suffer by fire, on stock and utensils in their regular built sugar-house,’ was held not to extend to damage done to the sugar by the heat of the usual fires employed in refining, being accumulated by the mismanagement of plaintiffs, who inadvertently kept the top of their chimney closed.’ *Austin v. Drewe.*

In insurances against fire, the loss may be either partial or total, and some of the offices, if not all, expressly undertake to allow all reasonable charges, attending the removal of goods in cases of fire, and to pay the sufferer’s loss, whether the goods are destroyed, lost, or damaged, by such removal. Park, 449. In a policy against fire from half year to half year, the assured agreed to pay the premium half yearly, ‘as long as the insurers should agree to accept the same,’ within fifteen days after the expiration of the former half year, and it was also stipulated that no insurance should take place till the premium was actually paid; a loss happened within fifteen days after the end of one half year, but before the premium of the next was paid: held that the insurers were not liable though the assured tendered the premium before the end of fifteen days, but after the loss. *Torleton v. Staniforth in Error*, E. 36 Geo. 3.

Want of fairness in the statement of circumstances is very justly held to vitiate this obligation with most others. A plaintiff, Buse v. Turner, having one of several warehouses next but one to a boat-builder’s shop which took fire; on the same evening, after the fire was apparently extinguished, gave instructions by an extraordinary conveyance for insuring that warehouse, then having others uninsured, but without apprising the insurers of the recent neighbouring fire.

Though the terms of insurance did not expressly require the communication, it was held that the concealment of this fact avoided the policy. 6 *W. P. Taunton*, 338.

Contrary to what has been determined as to MARINE INSURANCES (see that article), fire policies are not, in their nature, assignable, nor can the interest in them be transferred without the consent of the office. It is provided, however, that, when any person dies, the interest shall remain to his heir, executor, or administrator, respectively, to whom the property insured belongs; provided they procure their right to be endorsed on the policy, or the premium be paid in their name. Park, 549. It is necessary that the party injured should have an interest or property in the house insured, at the time the policy is made out, and at the time the fire happens.

For some interesting particulars as to the capitals of the principal Insurance Companies, see ENGLAND, vol. viii. p. 307.

INSURMOUNTABLE, adj. { Fr. *surmon-*

INSURMOUNTABLY, adv. { ter; Lat. *in super montem*. Insuperable; unconquerable.

This difficulty is *insurmountable*, till I can make simplicity and variety the same. *Locke.*

Hope thinks nothing difficult; despair tells us, that difficulty is *insurmountable*. *Watts.*

INSURRECTION, n. s. Lat. *insurgo*. A seditious rising; a rebellious commotion.

This city of old time hath made *insurrection* against kings, and that rebellion and sedition have been made therein. *Ezra.*

There shall be a great *insurrection* upon those that fear the Lord. 2 *Esd.* xvi. 70.

Between the acting of a dreadful thing,
And the first motion, all the interim is
Like a phantasma, or a hideous dream:
The genius and the mortal instruments
Are then in council; and the state of man,
Like to a little kingdom, suffers then
The nature of an *insurrection*.

Shakespeare. *Julius Caesar.*
Insurrections of base people are commonly more furious in their beginnings. *Bacon’s Henry VII.*

The trade of Rome had like to have suffered another great stroke by an *insurrection* in Egypt. *Arbuthnot.*

INTACTÆ, in geometry, right lines which are continually approached by curves, and yet can never be touched by them. They are more usually called Asymptotes. See CONIC SECTIONS.

INTACTIBLE, adj. Lat. *in tactum*. Not perceptible to the touch.

INTAGLIO, n. s. Italian. Any thing that has figures engraved on it.

We meet with the figures which Juvenal describes on antique *intaglios* and medals. *Addison on Italy.*

INTAGLIOS are precious stones on which are engraved the heads of great men, inscriptions, and the like. They are often set in rings, seals, &c.

INTAPHERNES, one of the seven Persian lords, who conspired against Smerdis the Magian. See PERSIA. He was afterwards put to death by Darius for conspiring against him, together with his whole family, except two persons, viz. his wife and any other she should name; who

thereupon preferred her brother to her husband and children, saying she might have another husband and more children, but, her parents being dead, she could never have another brother.

INTASTABLE, *adj.* In and taste. Not raising any sensations in the organs of taste. A word not elegant, nor used.

Something which is invisible, *intastable*, and intangible, as existing only in the fancy, may produce a pleasure superior to that of sense. *Grew.*

INTEGER, *n.s.* Fr. *integral*; Lat. *integralis*.

INTEGRAL, *adj. & n.s.* *integer*. The whole

INTEGRITY, *n.s.* Of any thing: uninjured; complete; not defective; not fractional: the whole, as made up of parts. Integrity, honesty; purity of manners; entireness; genuineness of character.

Your dishonour

Mangles true judgment, and bereaves the state
Of that *integrity* which should become it.

Shakespeare.

My robe

And my *integrity* to Heaven is all
I dare now call my own. *Id. Henry VIII.*

A local motion keepeth bodies *integral*, and their parts together. *Bacon's Natural History.*

Language continued long in its purity and *integrity*. *Hale.*

Physicians, by the help of anatomical dissections, have searched into those various meanders of the veins, arteries, nerves, and *integrals* of the human body. *Id.*

No wonder if one remain speechless, thought of *integral* principles, who, from an infant, should be bred up amongst mutes, and have no teaching. *Holder.*

As not only signified a piece of money, but any *integer*: from whence is derived the word *ace*, or *unit*. *Arbutnot.*

The libertine, instead of attempting to corrupt our *integrity*, will conceal and disguise his own vices. *Rogers.*

Whoever has examined both parties cannot go far towards the extremes of either, without violence to his *integrity* or understanding. *Swift.*

Take away this transformation, and there is no chasm, nor can it affect the *integrity* of the action. *Broome.*

A mathematical whole is better called *integral*, when the several parts which make up the whole are distinct, and each may subsist apart. *Watts.*

I promised that when I possessed the power, I would use it with inflexible *integrity*. *Johnson's Rasselas.*

INTEGRAL, or **INTEGRANT**, in philosophy, appellations given to parts of bodies which are of a similar nature with the whole: thus filings of iron have the same nature and properties as bars of iron. Bodies may be reduced into their integrant parts by triture or grinding, limation or filing, solution, amalgamation, &c. Chemists distinguish between the integrant and constituent parts of bodies: thus when crude mercury is dissolved in nitric acid, though held imperceptibly in the menstruum; yet when that menstruum is diluted with water, and a copper-plate is suspended in it, the menstruum leaves the mercury, to work upon the copper, and the mercury subsides unaltered and in its own natural form; the mercury, therefore, in this operation, was only divided into its integrant parts, or small parcels, by the same nature and pro-

perties as the whole; but when cinnabar is resolved or divided into crude mercury and sulphur, neither of these is of the same nature and properties with the cinnabar, and they are not its integrant but its constituent parts.

INTEG'UMENT, *n.s.* Lat. *integumentum*, *intego*. Any thing that covers or envelops another.

He could no more live without his frize coat than without his skin: it is not indeed so properly his coat, as what the anatomists call one of the *integuments* of the body. *Addison.*

IN'TELLECT, *n.s.*

INTELLEC'TION, *n.s.*

INTELLEC'TIVE, *adj.*

INTELLEC'TUAL, *adj. & n.s.*

INTEL'LIGENCE, *n.s.*

INTEL'LIGENCY, *n.s.*

INTEL'LIGENCER, *n.s.*

INTEL'LIGENT, *adj.*

INTELLIGENTIAL, *adj.*

INTELLIGIBIL'ITY, *n.s.*

INTEL'LIBLE, *adj.*

INTEL'LIBELESS, *n.s.*

INTEL'LIBILY, *adv.*

INTELLECT, *n.s.*

INTELLECTU'AL, *adj.*

INTELLIGENT, *adj.*

INTELLIGIB'LE, *adj.*

INTELLIGIB'LY, *adv.*

<

A mankind witch! hence with her, out of door!
A most *intelligence* bawd! *Shakspeare.*
Servants, who seem no less,
Which are to France the spies and speculations
Intelligent of our state. *Id. King Lear.*

It is not only in order of nature for him to govern
that is the more *intelligent*, as Aristotle would have
it; but there is no less required for government,
courage to protect, and, above all, honesty. *Bacon.*

If they had instructions to that purpose, they
might be the best *intelligencers* to the king of the
true state of his whole kingdom. *Id.*

He keeps *intelligence* by thousand spies;
Argus to him bequeathed his hundred eyes:
So waking, still he sleeps, and sleeping, wakeful
lies. *Fletcher's Purple Island.*

Men's hearts and faces are so far asunder
That they hold no *intelligence*. *Beaumont and Fletcher's Philaster.*

The advertisements of neighbour princes are always
to be regarded, for that they receive *intelligence* from
better authors than persons of inferior note. *Hayward.*

Noah sends out his *intelligencers*, the raven and the
dove; whose wings in that vaporous air might
easily deserv further than his sight. *Bp. Hall.*

They are the best sort of *intelligencers*; for they
have a way into the inmost closets of princes. *Howell.*

Religion teaches us to present to God our bodies
as well as our souls: if the body serves the soul in
actions natural and civil, and *intellectual*, it must not
be eased in the only offices of religion. *Taylor.*

Let all the passages
Be well secured, that no *intelligence*
May pass between the prince and them. *Denham.*

He lived rather in a fair *intelligence*, than any
friendship with the favourites. *Clarendon.*

In at his mouth
The devil entered; and his brutal sense,
His heart or head possessing, soon inspired
With act *intelligential*. *Milton's Paradise Lost.*

Food alike those pure
Intelligential substances require,
As doth your rational. *Id.*

Who would lose,
Though full of pain, this *intellectual* being,
Those thoughts that wander through eternity
To perish rather, swallowed up and lost,
In the wide womb of uncreated night,
Devoid of sense and motion? *Id.*

How fully hast thou satisfied me, pure
Intelligence of heaven, angel! *Id.*
All heart they live, all head, all eye, all ear,
All *intellect*, all sense. *Id.*

Intelligent of seasons, they set forth
Their airy caravan. *Id.*

Her husband not nigh, *Id.*

Whose higher *intellectual* more I shun. *Id.*

There are divers ranks of created beings intermediate
between the glorious God and man, as the
glorious angels and created *intelligences*. *Hale.*

If a man as *intellective* be created, then either he
means the whole man, or only that by which he is
intellective. *Glanville.*

The fancies of most, like the index of a clock, are
moved but by the inward springs of the corporeal
machine; which, even on the most sublimed *intellec-*
tual, is dangerously *influential*. *Id. Scepsis.*

Simple apprehension denotes the soul's naked *in-*
tellection of an object, without either composition or
deduction. *Id.*

His eyes, being his diligent *intelligencers*, could
carry unto him no other news but uncomfortable. *Sidney.*

In a dark vision's *intellectual* scene,
Beneath a bower for sorrow made,
The melancholy Cowley lay. *Cowley.*
The genuine sense, *intelligibly* told,
Shews a translator both discreet and bold. *Roscommon.*

They hoped to get the favour of the houses, and
by the favour of the houses they hoped for that of the
intelligences, and by their favour, for that of the su-
preme God. *Stillingfleet.*

Satan appearing like a cherub to Uriel, the *intelli-*
gence of the sun circumvented him even in his own
province. *Dryden.*

Something must be lost in all translations, but the
sense will remain, which would otherwise be maimed
when it is scarce *intelligible*. *Id.*

It is in our ideas, that both the rightness of our
knowledge, and the propriety or *intelligibleness* of our
speaking, consists. *Locke.*

They have news-gatherers and *intelligencers*, who
make them acquainted with the conversation of the
whole kingdom. *Spectator.*

We shall give satisfaction to the mind, to shew it
a fair and *intelligible* account of the deluge. *Burnet.*

All those arts, rarities, and inventions, which vul-
gar minds gaze at, and the ingenious pursue, are but
the reliques of an *intellect* defaced with sin and time. *South.*

To write of metals and minerals *intelligibly*, is a
task more difficult than to write of animals. *Woodward.*

They will say 'tis not the bulk or substance of the
animal spirit, but its motion and agility, that pro-
duces *intellection* and sense. *Bentley's Sermons.*

Those tales had been sung to lull children asleep,
before ever Berossus set up his *intelligence* office at
Coos. *Bentley.*

A train of phantoms in wild order rose,
And joined, this *intellectual* scene compose. *Pope.*

Intellect, the artificer, works lamely without his
proper instrument, sense. *Bolingbroke.*

Logick is to teach us the right use of our reason,
or *intellectual* powers. *Watts.*

Many natural duties relating to God, ourselves,
and our neighbours, would be exceeding difficult for
the bulk of mankind to find out by reason: therefore
it has pleased God to express them in a plain manner,
intelligible to souls of the lowest capacity. *Id.*

When a roast or ragout,
And fish, and soup by some side dishes backed
Can give us either pain or pleasure, who
Would pique himself on *intellects*, whose use
Depends so much upon the gastric juice. *Byron. Don Juan.*

I'm a plain man, and in a single station,
But—oh! ye lords of ladies *intellectual*,
Inform us truly, have they not hen-pecked you all.
Id.

INTEM'PERAMENT, *n. s.* In and tem-
perament. Bad constitution.

Some depend upon the *intemperament* of the par-
ulcerated, and others upon the afflux of lacerative
humours. *Harvey.*

INTEM'PERANCE, <i>n. s.</i>	Fr. <i>intempe-</i>
INTEM'PERANCY, <i>n. s.</i>	rance; Lat. <i>in-</i>
INTEM'PERATE, <i>adj.</i>	<i>temperantia.</i>
INTEM'PERATELY, <i>adv.</i>	Want of moder- ation;
INTEM'PERATENESS, <i>n. s.</i>	excess in
INTEM'PERATURE, <i>n. s.</i>	meat or drink:

intemperate, immoderate in appetite; passionate; hasty; ungovernable; excessive; exceeding a just mean; and in this sense we say intemperate weather; an intemperate climate: intemperature, excess of some quality.

Use not thy mouth to *intemperate swearing*; for therein is the word of sin. *Ecclesiastes. xxiii. 13.*

You are more *intemperate* in your blood

Than those pampered animals,

That rage in savage sensuality. *Shakspeare.*

Boundless *intemperance*

In nature is a tyranny. *Id. Macbeth.*

Another law of Lycurgus induced to *intemperance*, and all kinds of incontinency. *Hakewill.*

More women should die than men, if the number of burials answered in proportion to that of sicknesses; but men, being more *intemperate* than women, die as much by reason of their vices, as women do by the infirmity of their sex. *Graunt.*

How grossly do many of us contradict the plain precepts of the Gospel, by living *intemperately* or unjustly. *Tillatson.*

Do not too many believe no religion to be pure, but what is *intemperately* rigid? Whereas no religion is true, that is not peaceable as well as pure. *Sprat.*

The Lacedemonians trained up their children to hate drunkenness and *intemperance*, by bringing a drunken man into their company. *Watts.*

Free from the wayward bias bigots feel,

From fancy's influence and *intemperate* zeal. *Couper. Progress of Error.*

INTEN'ABLE, *adj.* In and tenable. Intenable, indefensible; as, an intenable opinion; an intenable fortress.

I know I love in vain, strive against hope;
Yet in this captious and *intenable* sieve,
I still pour in the waters of my love. *Shakspeare.*

INTEND', *v. a.* } Fr. *entendement*;
INTEN'DANT, *n. s.* } Lat. *intendo*. To stretch
INTEN'DIMENT, *n. s.* } out; to enforce; to
INTEND'MENT, *n. s.* } strain; to regard, or
take care off; to pay attention; to mean or de-
sign: intendant, an officer of the highest class,
who oversees any particular allotment of the
public business: intendiment, intendment, old
words which signify attention, intention, or de-
sign

Thou art a prince yborne by thy discente;
And for to rule thy royll dignite,
I shall the given, first *intendemente*,
Discrecion, prudence, in right judgement,
Whiche in a prince is thing most covenable. *Chaucer's Miscellanies.*

They could not *intend* to the recovery of that
country of the north. *Spenser.*

Be nought heret dismayed

Till well ye wot, by grave *intendiment*,

What woman, and wherefore doth we upbraid. *Id.*

The same advancing high above his head,
With sharp *intended* sting so rude him smote,
That to the earth him drove, as stricken dead;
Ne living wight would have him life behot. *Fairie Queen.*

This they should carefully *intend*, and not, when
the sacrament is administered, imagine themselves
called only to walk up and down in a white and
shining garment. *Hooker.*

Out of my love to you, I came hither to acquaint
you withal; that either you might stay him from his

intendment, or brook such disgrace well as he shall run into. *Shakspeare.*

Neither was there any who might share in the government, while the king *intended* his pleasure. *Bacon's Henry VII.*

Having no children, she did with singular care and tenderness *intend* the education of Philip. *Bacon.*

Go therefore, mighty powers? *intend* at home,
While here shall be our home, what best may ease
The present misery. *Milton's Paradise Lost.*

By this the lungs are *intended* or remitted. *Hale.*

The opinion she had of his wisdom was such as made her esteem greatly of his words: but that the words themselves sounded so, as she could not imagine what they *intended*. *Sidney.*

Their beauty they, and we our loves suspend;
Nought can our wishes, save thy health, *intend*. *Waller.*

All that worship for fear, profit, or some other by-end, fall more or less within the *intendment* of this emblem. *L'Estrange.*

Magnetism may be *intended* and remitted, and is found only in the magnet and in iron. *Newton.*

Nearchus, who commanded Alexander's fleet, and Onesicrates, his *intendant* general of marine, and both left relations of the Indies. *Arbuthnot.*

Elegant phrase and figure formed to please
Are qualities, that seem to comprehend
Whatever parents, guardians, schools *intend*. *Couper. Progress of Error.*

INTENDMENT OF CRIMES. In cases of treason, intention proved by circumstances is punishable as if it were put in execution. So likewise, if a person forcibly enter a house in the night-time, with intent to commit burglary, it is felony: and an assault on the highway, with an intent to commit robbery, is felony, and punished with transportation.

INTEN'ERATE, *v. a.* } Lat. *in* and *tener*.

INTEN'LA'TION, *n. s.* } To make tender, or
soften.

In living creatures the noblest use of nourishment is for the prolongation of life, restoration of some degree of youth, and *inteneration* of the parts. *Bacon.*

Autumn vigour gives,
Equal, *intenerating*, milky grain. *Phillips.*

INTENSE', *adj.* } Lat. *intensus*, *in* and
INTENSE'LY, *adv.* } *tendo*. Raised to a high
INTENSE'NESS, *n. s.* } degree; vehement; ar-
INTEN'SION, *n. s.* } dent; kept on the
INTEN'SIVE, *adj.* } stretch; anxiously atten-

INTEN'SIVELY, *adv.* } tive: intensely, to an extreme degree: intension, the act of forcing or straining any thing; intensive, increased; intent; unremitting: intensively, by increase of degree.

Sounds will be carried further with the wind than against the wind; and likewise to rise and fall with the *intension* or remission of the wind. *Bacon.*

God and the good angels are more free than we are, that is, *intensively* in the degree of freedom; but not *extensively* in the latitude of the object, according to a liberty of exercise, but not of specification. *Brownhill against Hobbes.*

Faith differs from hope in the extention of its object, and in the *intension* of degree. *Taylor.*

But in disparity
The one *intense*; the other still remiss,
Cannot well suit with either, but soon prove
Tedium alike. *Milton's Paradise Lost.*

As his perfection is infinitely greater than the perfection of a man, so it is infinitely greater than the perfection of an angel; and, were it not infinitely greater than the perfection of an angel, it could not be infinitely greater than the perfection of a man, because the *intensive* distance between the perfection of an angel and of a man is but finite. *Hale.*

Sublime or low, unbend or *intense*,
The sound is still a comment to the sense. *Roscommon.*

To observe the effects of a distillation, prosecuted with so *intense* and unusual a degree of heat we ventured to come near. *Boyle.*

If an Englishman considers our world, how *intensely* it is heated, he cannot suppose that it will cool again. *Addison.*

The water of springs and rivers, that sustains a diminution from the heat above, being evaporated more or less, in proportion to the greater or lesser *intenseness* of heat. *Woodward.*

Where sits the soul, *intense* collected cool,
Bright as the skies, and as the season keen. *Thomson.*

Not a sound is heard
To break the midnight air, though the raised ear,
Intensely list'ning, drinks in every breath. *Barbauld. Evening Meditation.*

The electric blood with which their arteries run
Their body's self turned soul with the *intense*
Feeling of that which is. *Byron. Prophecy of Dante.*

INTENT', *adj. & n. s.* } Fr. *intention*; Lat. **INTENTION**, *n. s.* } *intentus*. Anxiously **INTENTIONAL**, *adj.* diligent: intent, a design or purpose: to all **INTENTIONALLY**, *adv.* intents, in all senses, whatever be meant. See **INTEND**. **INTENTIVE**, *adj.* **INTENTIVELY**, *adv.* **INTENTLY**, *adv.* **INTENTNESS**, *n. s.* Intentional, designed in will or action: intentive, diligently applied: intently, with close attention or eager desire: intentness, anxious and diligent application.

For his *intent* within short while
Was to returne unto this yle
That he came fro, and kepe his day;
For nothing would he be awaie. *Chaucer. Dreme.*

Surely, my sonne! then answered he againe,
If happy; then it is in this *intent*,
That having small yet doe I not complaine
Of want, no wish for more it to augment
But doe myselfe, with that I have content. *Spenser. Fuerie Querne.*

Although the Scripture of God be stored with infinite variety of matter in all kinds, although it abound with all sorts of laws, yet the principal *intent* of Scripture is to deliver the iaws of duties supernatural. *Hooker.*

Whereas commandment was given to destroy all places where the Canaanites had served the gods, this precept had reference unto a special *intent* and purpose, which was, that there should be but one place whereunto the people might bring offerings. *Id.*

I'll urge his hatred more to Clarence;
And, if I fail not in my deep *intent*,
Clarence hath not another day to live. *Shakspeare.*

She did course o'er my exteriors with such a

greedy *intention*, that the appetite of her eye did seem to scorch me up like a burning-glass. *Id.*

Where the object is fine and accurate, it conduceth much to have the sense *intensive* and erect. *Bacon's Natural History.*

Distractions in England made most men *intent* to their own safety. *King Charles.*

If we insist passionately or so *intently* on the truth of our beliefs, as not to proceed to as vigorous pursuit of all just, sober, and godly living. *Hammond.*

When we use but those means which God hath laid before us, it is a good sign that we are rather *intent* upon God's glory than our own convenience. *Taylor.*

The general himself had been more *intent* upon his command. *Clarendon.*

They on their mirth and dance *Intent.* *Milton.*

I find in myself that this inward principle doth exert many of its actions *intentionally* and purposely. *Hale.*

The naked relation, at least the *intutive* consideration of that, is able still, and at this disadvantage of time, to rend the hearts of pious contemplators. *Browne's Vulgar Errors.*

I wish others the same *intention*, and greater successes. *Temple.*

Of action eager, and *intent* on thought,
The chiefs your honourable danger sought. *Dryden.*

This fury fit for her *intent* she chose; *Id.*

One who delights in wars. *Id. Aeneid.*
He was miserable to all *intents* and purposes. *L'Estrange.*

Were men as *intent* upon this as on things of lower concernment, there are none so enslaved to the necessities of life, who might not find many vacancies that might be husbanded to this advantage of their knowledge. *Locke.*

Intention is when the mind with great earnestness, and of choice, fixis its *view* on any idea, considers it on every side, and will not be called off by the ordinary solicitation of other ideas. *Id.*

The Athenians sent their fleet to Sicily, upon pretence only to assist the Leontines; but with an *intent* to make themselves masters of that island. *Grew.*

In persons possessed with other notions of religion, the understanding cannot quit these but by great examination; which cannot be done without some labour and *intention* of the mind, and the thoughts dwelling a considerable time upon the survey and discussion of each particular. *South.*

There is an incurable blindness caused by a resolution not to see; and, to all *intents* and purposes, he who will not open his eyes is for the present as blind as he that cannot. *Id.*

The glory of God is the end which every intelligent being is bound to consult, by a direct and *intentional* service. *Rogers.*

Whenever I am wishing to write to you, I shall conclude you are *intentionally* doing so to me. *Atterbury to Pope.*

The odd paintings of an Indian screen may please a little; but, when you fix your eye *intently* upon them, they appear so disproportioned that they give a judicious eye pain. *Atterbury.*

Most part of chronical distempers proceed from laxity of the fibres; in which case the principal *intention* is to restore the tone of the solid parts. *Arbuthnot on Aliments.*

The Chian medal seats him with a volume open, and reading *intently*. *Pope.*

Of darkness visible so much be lent,
As half to shew, half veil the deep intent.

Id. Dunciad.

He is more disengaged from his *intenness* on af-
fairs. *Swift.*

Whilst they are *intent* on one particular part of
their theme, they bend all their thoughts to prove or
disprove some proposition that relates to that part,
without attention to the consequences that may affect
another. *Watts.*

Be *intent* and solicitous to take up the meaning of
the speaker. *Id.*

Some, with hope replenished and rebuoyed,
Return to whence they came—with like *intent*,
And weave their web again.

Byron. Childe Harold.

He lied with such a fervour of *intention*,
There was no doubt he earned his laureat pension.
Id. Don Juan.

Some have been so good-natured as to cloak coun-
sel under the garb of conjecture, and under pretence
of guessing my *intentions* have recommended their
own favorite studies to my notice as fit objects for
my recommendation to the notice of my fellow citi-
zens. *Canning. Microcosm.*

INTER', v.a. Fr. *enterrer*; Lat. *in* and *terra*.
To cover with earth; to bury.

The evil that men do lives after them;
The good is oft *interred* with their bones.

Shakspeare.

His body shall be royally *interred*,
And the last funeral pomps adorn his herse.

Dryden.

The best way is to *inter* them as you furrow peace.
Mortimer.

The ashes, in an old record of the convent, are
said to have been *interred* between the very wall and
the altar where they were taken up. *Addison.*

But let him

Inter his son before we press upon him
This edict.

Byron. Tragedy. Two Foscari. act. iv. sc. 1.

INTERAMNA, in ancient geography, a town of the Cisappennine Umbria; so called from its situation between rivers, or in an island in the river Nar, now called Terni. It was the birthplace of Tacitus the historian, and Tacitus the emperor. Pliny distinguishes the natives by the name of Interamnates Nartes.

INTERAMNA LIRINAS, a town and colony of the Volsci in Latium, on the confines of Samnium, at the confluence of the rivers Liris and Melpis, now in ruins.

INTERAMNA, or INTERAMNIA, Prætutianorum, a town in the territory of the Prætutiani, a part of Picenum; now called Teramo, in the Abruzzo of Naples.

INTER'CALAR, adj. &c. Fr. *intercalaire*; Lat. **INTERCAL'ARY**. &c. *intercalaris*. Inserted out of the common order to preserve the equation of time; as, the 29th of February in a leap year is an intercalary day.

INTERCALARY DAY, the odd day in leap year, so called from *calare*, to proclaim, it being proclaimed by the priests with a loud voice.

INTER'CALATE, v. a. Fr. *intercaler*; Lat. *interculo*. To insert an extraordinary day.

INTERCATIA, in ancient geography, a town of the Vaccei in Hispania Citra. Here Scipio Emilianus slew a champion of the barbarians in single combat; and was the first who mounted

the wall in taking the town. It was situated to the south-east of Asturica, and is now in ruins.

INTERCALATION, n. s. Fr. *intercalation*; Lat. *intercalatio*. Insertion of days out of the ordinary reckoning.

In sixty-three years there may be lost almost eighteen days, omitting the *intercalation* of one day every fourth year, allowed for this quadrant, or six supernumeraries. *Browne.*

INTERCEDE', v. n. Fr. *interceder*; Lat. **INTERCED'ER**, n.s. *intercedo*. To pass be-

INTERCESSION, n.s. *between*; to mediate; to

INTERCES'SOR, n.s. *act between two par-
ties with a view of reconciling differences.* It
has *with* if only one part be named, and *between*
if both be named. Interceder, more properly
written intercessor, a mediator; an agent be-
tween two parties to procure reconciliation: in-
tercession, mediation; interposition; agency in
the cause of another, sometimes against him.

He bare the sin of many, and made *intercession* for
the transgressors. *Isa. liii. 12.*

Pray not thou for this people, neither make *inter-
cession* to me; for I will not hear thee. *Jer. vii. 16.*

He maketh *intercession* to God against Israel.

Rom. xi. 2.

So of thy grace and bountie special
To the King on *highe* be *intercessor*,

In hevyn to crown him a queene of honoure.

G. Cavendish's Metrical Visions.

The better course should be by planting of garri-
sons about him, which, whensoever he shall look
forth, or be drawn out, shall be always ready to *in-
tercept* his going or coming. *Spenser.*

Can you, when you pushed out of your gates the
very defender of them, think to front his revenges
with the palsied *intercession* of such a decayed dotard
as you seem to be. *Shakspeare.*

Behold the heavens! thither thine eyesight bend;
Thy looks, sighs, tears, for *intercessours* send.

Fairfax.

On man's behalf,

Patron or *intercessour*, none appeared. *Milton.*

Them the glad sou

Presenting, thus to *intercede* began. *Id.*

He supposeth that a vast period *interceded* between
that origination and the age wherein he lived.

Hale.

Loving, and therefore constant, he used still the
intercession of diligence and faith, ever hoping, because
he would not put himself into that hell to be hopeless.

Sidney.

Origen denies that any prayer is to be made to
them, although it be only to *intercede* with God for us,
but only the Son of God. *Stillingfleet.*

To pray to the saints, to obtain things by their
merits and *intercessions*, is allowed and contended for
by the Roman church. *Id.*

I may restore myself into the good graces of my
fair criticks, and your lordship may *intercede* with
them on my promise of amendment. *Dryden.*

Your *intercession* now is needless grown;

Retire, and let me speak with her alone. *Id.*

When we shall hear our eternal doom from our
intercessours, it will convince us, that a denial of
Christ is more than transitory words. *South.*

Those superficies reflect the greatest quantity of
light, which have the greatest refracting power, and
which *intercede* mediums that differ most in their re-
fracting densities. *Newton.*

Though for the first all Westminster should plead,
And for the last all Gresham *intercede*. *Young.*

INTERCEPT', *v. a.* Lat. *intercipio*. To
INTERCEP'TION, *n. s.* To stop and seize in the
way; to obstruct; cut off, or stop from being
communicated.

Who *intercepts* me in my expedition?

--O, she that might have *intercepted* thee,

By strangling thee. *Shakspeare. Richard III.*

I then in London, keeper of the king,
Mustered my soldiers, gathered flocks of friends,
Marched towards St. Albans t' *intercept* the queen.

Shakspeare.

Your *intercepted* packets

You writ to the pope. *Id. Henry.*

Though they cannot a iswer my distress,
Yet in some sort they're better than the tribunes;
For that they will not *intercept* my tale.

Shakspeare.

The word in Matthew doth not only signify suspen-sion, but also suffocation, strangulation, or *intercep-tion* of breath. *Browne.*

On barbed steeds they rode in proud array,
Thick as the college of the bees in May,
When swarming o'er the dusky fields they fly,
New to the flowers, and *intercept* the sky.

Dryden.

If we hope for things which are at too great a dis-tance from us, it is possible that we may be *intercep-ted* by death in our progress towards them.

Addison's Spectator.

Behind the hole I fastened to the pasteboard, with
pitch, the blade of a sharp knife, to *intercept* some
part of the light which passed through the hole.

Newton's Opticks.

The direful woes,

Which voyaging from Troy the victors bore,
While storms vindictive *intercept* the shore.

Pope.

How dark the veil that *intercepts* the blaze
Of Heaven's mysterious purposes and ways!

Cowper. Charity.

INTERCHANGE', *v. a. & n. s.* Fr. *changer*.
INTERCHANGE'ABLE, *adj.* To put each
INTERCHANGE'ABLY, *adv.* in the place of
INTERCHANG'MENT, *n. s.* the other; to
exchange; to succeed alternately: commerce; al-
ternate succession; mutual donation and recep-tion.

In these two things the East and West churches
did *interchangeably* both confront the Jews and concur
with them. *Hooker.*

Let Diomedes bear him,

And bring us Cressid hither. Good Diomed,
Furnish you fairly for this *interchange*.

Shakspeare.

Farewell; the leisure, and the fearful time,
Cuts off the ceremonious vows of love,
And ample *interchange* of sweet discourse. *Id.*
Since their more mature dignities made separation
of their society, their encounters, though not personal,
have been royally attornied with *interchange* of gifts.
Id.

I shall *interchange*

My wained state for Henry's regal crown. *Id.*
A contract of eternal bond of love,
Confirmed by mutual joinder of your hands,
Attested by the holy close of lips,
Strengthened by *interchangement* of your rings. *Id.*
This in myself I boldly will defend,
And *interchangeably* hurl down my gage
Upon this overweening traitor's foot. *Id.*
So many testimonies, *interchangeable* warrants,

and counterrolments, running through the hands,
and resting in the power of so many several persons,
is sufficient to argue and convince all manner of
falshood. *Bacon's Office of Alienation.*

With what delights could I have walked thee
round!

If I could joy in ought! sweet *interchange*
Of hill and valley, rivers, woods, and plains.

Milton.

His faithful friend and brother Euarchus came so
mighty to his succour, that, with some *interchang-ing*
changes of fortune, they begat, of a just war, the
best child peace. *Sidney.*

All along the history of the Old Testament we
find the *interchangeable* providences of God towards
the people of Israel, always suited to their manners.

Tillotson.

Removes and *interchanges* would often happen in
the first ages after the flood. *Burnet's Theory.*

After so vast an obligation, owned by so free an
acknowledgment, could any thing be expected but a
continued *interchange* of kindnesses? *South.*

These articles were signed by our plenipotentiaries,
and those of Holland; but not by the French, al-
though it ought to have been done *interchangeably*;
and the ministers here prevailed on the queen to ex-
ecute a ratification of articles, which only one part
had signed. *Swift.*

Too late and long
We may deplore and struggle with the coil,
In wretched *interchange* of wrong for wrong
'Midst a contentious world, striving where none are
strong. *Byron. Childe Harold.*

Upon occasions of such trying exigency, as those
which we have lately experienced, I hold it to be the
very essence of our free and popular constitution,
that an unreserved *interchange* of sentiment should
take place between the representative and his consti-
tuents. *Canning's Speeches.*

INTERCESSIO, **INTERCESSION**, was used in
ancient Rome, for the act of a tribune of the
people, or other magistrate, by which he inhibited
the acts of other magistrates; or even, in
case of the tribunes, the decrees of the senate.
Veto was the solemn word used by the tribunes,
when they inhibited any decree of the senate,
or law proposed to the people. The general
law of these intercessions was, that any magis-trate
might inhibit the acts of his equal or in-
ferior; but the tribunes had the sole proroga-tive
of controlling the acts of every other magis-trate.

INTERCESSOR, in the Roman law, was the
name of an officer, whom the governors of pro-vincies appointed principally to raise taxes and
other duties.

INTERCESSOR is also a term heretofore applied
to such bishops as, during the vacancy of a see,
administered the bishopric, till a successor to
the deceased bishop had been elected. The
third council of Carthage calls these interventors

INTERCIP'TENT, *adj. & n. s.* See **INTER-
CEPT**.

They commend repellents, but not with much as-
tringency, unless as *intercipients* upon the parts above,
lest the matter should thereby be impacted in the
part. *Wiseman.*

INTERCIS'ION, *n. s.* Lat. *inter* and *cado*.
Interruption.

By cessation of oracles we may understand their
intercision not abscission, or consummate desolation.
Browne.

INTERCLUDE, *v. n.* Lat. *intercludo*. To shut from a place or course by something intervening; to intercept.

The voice is sometimes *intercluded* by a hoarseness, or viscous phlegm cleaving to the aspera arteria.
Holder.

INTERCLUSION, *n. s.* Lat. *interclusus*. Obstruction; interception.

INTERCOLUMNIATION, *n. s.* Lat. *inter* and *columna*. The space between the pillars.

The distance of *intercolumniation* may be near four of its own diameter, because the materials commonly laid over this pillar were rather of wood than stone.
Wotton.

INTERCOM'MON, *v. n.* Inter and communion. To feed at the same table.

Wine is to be forborn in consumptions, for that the spirits of the wine do prey upon the roscid juice of the body, and *intercommon* with the spirits of the body, and so rob them of their nourishment.

Bacon's Natural History.

INTERCOMMU'NITY, *n. s.* Inter and community. A mutual communication or communition; a mutual freedom or exercise of religion.

INTERCOSTAL, *adj.* Fr. *intercostal*; Lat. *inter* and *costa*. Placed between the ribs.

The diaphragm seems the principal instrument of ordinary respiration, although to restrained respiration the *intercostal* muscles may concur.
Boyle.

By the assistance of the inward *intercostal* muscles, in deep suspirations, we take large gulps of air.
More.

INTERCOURSE, *n. s.* Fr. *entrecours*. Commerce; exchange.

This sweet *intercourse*

Of looks, and smiles; for smiles from reason flow,
To brute denied, and are of love the food.
Milton.

Communication: followed by *with*.

The choice of the place requireth many circumstances, as the situation near the sea, for the commodiousness of an *intercourse* with England.
Bacon.

What an honor is it that God should admit us into such a participation of himself! That he should give us minds capable of such an *intercourse* with the Supreme Mind!
Attberry.

Alone amid the shades,

Still in harmonious *intercourse* they lived
The rural day, and talked with flowing heart,
Or sighed, and looked unutterable things.

Thomson.

INTERCUR'RENCE, *n. s.* From Lat. *intervento*. Passage between.

Consider what fluidity salt-petre is capable of, without the *intercurrence* of a liquor.
Boyle.

INTERCUR'RENT, *adj.* Lat. *intercurrentes*. Running between.

If into a phial, filled with good spirit of nitre, you cast a piece of iron, the liquor, whose parts moved placidly before, meeting with particles in the iron, altering the motion of its parts, and perhaps that of some very subtle *intercurrent* matter, those active parts presently begin to penetrate, and scatter abroad particles of the iron.
Boyle.

INTERDEAL', *n. s.* Inter and deal. Traffic; intercourse. Obso.etc.

The Gaulish speech is the very British, which is yet retained of the Welchmen and Britons of France; though the alteration of the trading and *interdeal* with other nations has greatly altered the dialect.
Spenser.

INTERDICT', *v. a. & n. s.* Fr. *interdire*; Lat. *interdicere*; **INTERDIC'TION**, *n. s.* Lat. *inter* and *dico*. To forbid; to prohibit; a prohibitory decree; a papal prohibition to the clergy to celebrate the holy offices: interdiction, a forbidding decree; papal anathema: interdictory, belonging to interdict.

Amongst his other fundamental laws, he did ordain the *interdicts* and prohibitions touching entrance of strangers.
Bacon.

The truest issue of thy throne,
By his own *interdiction* stands accurst.
Shakspeare.

Sternly he pronounced
The rigid *interdiction*, which resounds
Yet dreadful in mine ear.
Milton's Paradise Lost.

Alone I passed, through ways
That brought me on a sudden to the tree
Of *interdicted* knowledge.
Id. Paradise Regained.

Those are not fruits forbidden, no *interdict*
Defends the touching of these viands pure;
Their taste no knowledge works, at least of evil.
Id. Paradise Regained.

Had he lived to see her happy change,
He would have cancelled that harsh *interdict*,
And joined our hands himself.

Dryden's Don Sebastian.

Nani carried himself meritoriously against the pope, in the time of the *interdict*, which held up his credit among the patriots.
Wotton.

An archbishop may not only excommunicate and *interdict* his suffragans, but his vicar-general may do the same.
Ayliffe.

By magick fenced, by spells encompassed round,
No mortal touched this *interdicted* ground.
Tucket.

INTERDICT, a censure inflicted by a pope, or bishop, suspending the priests from their functions, and depriving the people of the use of sacraments, divine service, and Christian burial. This punishment was but little practised till the time of Gregory VII. Afterwards indeed *interdicts* were often executed in France, Italy, and Germany; and, in 1170, pope Alexander III. put all England under an *interdict*, forbidding the clergy to perform any part of divine service, except baptising of infants, taking confessions, and giving absolution to dying penitents. In excommunicating a prince all his subjects, who retain their allegiance, are excommunicated, and the whole country is put under an *interdict*. In the reign of king John the kingdom of England lay under a papal *interdict* for above six years together: it began A. D. 1208. In imitation of the popes, the bishops also soon began to *interdict*; and it became a common thing for a city, or town, to be excommunicated for the sake of a single person whom they undertook to shelter; but this severity was found to have such ill effects, to promote libertinism and a neglect of religion, that the succeeding popes very seldom made use of it. There was also an *interdict* of persons, who were deprived of the benefit of attending on divine service. Particular persons were also anciently interdicted of fire and water, which signified a banishment for some particular offence: by their censure, no person was allowed to receive them, or allow them fire or water; and, being thus wholly deprived of the two necessary elements of life, they were doubtless under a kind of civil death.

The following is the formula of an ancient interdict:—

‘ In the name of Christ, We, the bishop, in behalf of the Father, Son, and Holy Ghost, and of St. Peter, the chief of the apostles, and in our own behalf, do excommunicate and interdict this church, and all the chapels thereunto belonging, that no man from henceforth may have leave to say mass, or to hear it, or in any wise to administer any divine office, nor to receive God’s tithes without our leave; and whosoever shall presume to sing or hear mass, or perform any divine office, or to receive any tythes, contrary to this interdict, on the part of God the Father Almighty, and of the Son, and of the Holy Ghost, and on the behalf of St. Peter, and all the saints, let him be accursed and separated from all Christian society, and from entering into Holy Mother Church, where there is forgiveness of sins; and let him be anathema, mananatha, for ever with the devils in hell. Fiat, fiat.’—*Du Cange.*

INTERDICTS, in the Roman law, were certain formulas of words by which the praetor, when the possession of any property was contested between many, ordered or forbade something to be done with it, till the right or property should be legally determined. Which formulae were called interdicts, because they related to the possession of the thing in the interim, or till the right was ascertained.

They had three kinds of interdicts, prohibitory, restitutory, and exhibitory. Prohibitory were those by which the judges forbade any one to vex another in the possession of any thing legally belonging to him. Restitutory were those by which the judges appointed any one, who had been expelled out of his estate, to be repossessed, before his right was legally ascertained. Exhibitory were those by which any thing in dispute was ordered to be exhibited; as a testament, &c.

INTERE^ST, v. a. } Fr. *intérêt*
INTERE^ST, v. a., v. n., & u.s. } *scr*; Lat. *interest*. To concern; to affect, or give share in; to affect or move with passion; to gain the affections: interest, concern, or advantage; influence over others; participation; regard to private gain; usury; surplus of advantage.

The mystical communion of all faithful men is such as maketh every one to be *interested* in those precious blessings, which any one of them receiveth at God’s hands. *Hooker.*

Our joy,

Although our last not least; to whose young love,
The vines of France and milk of Burgundy,
Strive to be *interested*. *Shakspeare. King Lear.*

Did he take *interest*?

—No, not take *interest*; not, as you would say,
Directly, *interest*. *Shakspeare.*

They, who had hitherto preserved them, had now
lost their *interest*. *Clarendon.*

Divisions hinder the common *interest* and publick
good. *Temple.*

This was a goddess who used to *interest* herself in
marriages. *Addison on Medals.*

Exert, great God, thy *interest* in the sky;
Gain each kind power, each guardian deity,
That, conquered by the publick vow,
They bear the dismal mischief far awav. *Prior.*

It is a sad life we lead, my dear, to be so teased;
paying *interest* for old debts, and still contracting
new ones. *Arbuthnot.*

Wherever *interest* or power thinks fit to interfere,
it little imports what principles the opposite parties
think fit to charge upon each other. *Swift.*

Endeavour to adjust the degrees of influence, that
each cause might have in producing the effect, and
the proper agency and *interest* of each therein. *Watts.*

What nation will you find whose annals prove
So rich an *interest* in Almighty love? *Couper. Expostulation.*

She could repay each amatory look you lent
With *interest*, and in turn was wont with rigour
To exact of Cupid’s bills the full amount,
At sight, nor would permit you to discount. *Byron.*

God forbid, that there should not be modes of assembly by which every class of this great nation may be brought together to deliberate on any matters connected with their *interest* and their freedom. • *Canning.*

INTEREST is the premium paid for the loan of money. See ARITHMETIC.

INTEREST, in commerce, is a sum paid for the loan, or for forbearance in demanding a sum of money, called the principal. It is usually estimated according to some rate or proportion; in this country at a sum of money laid on, or considered as the aliquot part of £100.

The highest legal interest in England is 5 per cent. per annum, except, to the great injury of the poor, in the case of the pawnbrokers, who are allowed to take from 15 to 20 per cent.

Interest is either simple or compound.

Simple interest is that which is counted and allowed upon the principal only, for the whole time of the loan or forbearance.

The sum of the principal and interest is called the amount.

As the interest of any sum, for any time, is directly proportional to the principal sum and time, therefore the interest of £1 for one year being multiplied by any proposed principal sum, and by the time of its forbearance, in years and parts, will be its interest for that time. That is, if r = the rate of interest of £1 per annum, p = any principal sum lent, t = the time it is lent for, and a = the amount, or sum of principal and interest; then is prt = the interest of the sum p , for the time t , at the rate r ; and consequently $p + prt = p \times 1 + rt = a$, the amount of the same for that time. And, from this general theorem, other theorems can easily be deduced for finding any of the quantities above-mentioned; which, collected all together, will be as follow:—

1st, $a = p + prt$ the amount

2d, $p = \frac{a}{1 + rt}$ the principal,

3d, $r = \frac{a - p}{pt}$ the rate,

4th, $t = \frac{a - p}{pr}$ the time.

Tables of simple interest are so numerous, and attached to such a variety of publications, that we cannot think them needed in a work of science.

Compound Interest, called also Interest-upon-

Interest, is that which is counted not only upon the principal sum lent, but also for its interest, as it becomes due, at the end of each stated time of payment.

Although it is not lawful to lend money at compound interest, yet in purchasing annuities, pensions, &c., and taking leases in reversion, it is usual to allow compound interest to the purchaser for his ready money; and therefore it is necessary to understand the subject.

Besides the quantities concerned in simple interest, viz. the principal p , the rate or interest of £1 for one year r , the amount a , and the time t , there is another quantity employed in compound interest, viz. the ratio of the rate of interest, which is the amount of £1 for one time of payment, and which here let be denoted by R , viz. $R = 1 + r$. Then, the particular amounts for the several times may be thus computed, viz. As £1 is to its amount for any time, so is any proposed principal sum to its amount for the same time; i. e.

£1 : R :: p : pR the 1st year's amount,

£1 : R :: pR : pR^2 the 2d year's amount,

£1 : R :: pR^2 : pR^3 the 3d year's amount,

and so on.

Therefore in general, $pRt = a$ is the amount for the t year, or t time of payment. Whence the following general theorems are deduced:—

1st, $a = pR^t$ the amount,

2d, $p = \frac{a}{R^t}$ the principal,

3d, $r = \sqrt[t]{\frac{a}{p}} - 1$ the ratio,

4th, $t = \frac{\log. of a - \log. of p}{\log. of R}$ the time.

From which any one of the quantities may be found, when the rest are given.

For example, suppose it were required to find in how many years any principal sum will double itself, at any rate of interest. In this case we must employ the 4th theorem, where a will be $= 2p$, and then it is

$$t = \frac{\log. a - \log. p}{\log. R} = \frac{\log. 2p - \log. p}{\log. R} = \frac{\log. 2}{\log. R}$$

So, if the rate of interest be 5 per cent. per annum; then $R = 1 + .05 = 1.05$, and hence

$$t = \frac{\log. 2}{\log. 1.05} = \frac{\cdot 3010300}{\cdot 0211893} = 14.2067 \text{ nearly :}$$

that is, any sum doubles in $14\frac{1}{5}$ years nearly, at the rate of 5 per cent. per annum compound interest.

Compound interest is also computed by means of such a table as the following; containing the amounts of £1 from one year to forty, at various rates of interest:—

Years.	At 3 per Cent.	At $3\frac{1}{2}$ per Cent.	At 4 per Cent.	At $4\frac{1}{2}$ per Cent.	At 5 per Cent.	At 6 per Cent.
1	1.03000	1.03500	1.04000	1.04500	1.05000	1.06000
2	1.06090	1.07123	1.08160	1.09203	1.10250	1.12360
3	1.09273	1.10872	1.12486	1.14117	1.15763	1.19102
4	1.12551	1.14752	1.16986	1.19252	1.21551	1.26248
5	1.15927	1.18769	1.21665	1.24618	1.27623	1.33823
6	1.19405	1.22926	1.26532	1.30226	1.34010	1.41852
7	1.22987	1.27228	1.31593	1.36086	1.40710	1.50363
8	1.26677	1.31681	1.36857	1.42210	1.47746	1.59385
9	1.30177	1.36290	1.42331	1.48610	1.55133	1.68948
10	1.34392	1.41060	1.48024	1.55297	1.62890	1.79085
11	1.38423	1.45997	1.53945	1.62285	1.71034	1.89830
12	1.42576	1.51107	1.60103	1.69588	1.79586	2.01220
13	1.46853	1.56396	1.66507	1.77220	1.88565	2.13293
14	1.51259	1.61869	1.73168	1.85194	1.97993	2.26090
15	1.55797	1.67535	1.80094	1.93528	2.07893	2.39656
16	1.60471	1.73399	1.87298	2.02237	2.18287	2.54035
17	1.65285	1.79468	1.94790	2.11338	2.29202	2.69277
18	1.70243	1.85749	2.02582	2.20848	2.40662	2.85434
19	1.75351	1.92250	2.10685	2.30786	2.52695	3.02560
20	1.80611	1.98979	2.19112	2.41171	2.65330	3.20714
21	1.86029	2.05943	2.27877	2.52024	2.78596	3.39956
22	1.91610	2.13151	2.36992	2.63365	2.92526	3.60354
23	1.97359	2.20611	2.46472	2.75217	3.07152	3.81975
24	2.03279	2.28333	2.56330	2.87601	3.22510	4.04893
25	2.09378	2.36324	2.66584	3.00543	3.38635	4.29187
26	2.15659	2.44596	2.77247	3.14668	3.55567	4.54938
27	2.22129	2.53157	2.88337	3.28201	3.73346	4.82235
28	2.28793	2.62017	2.99870	3.42970	3.92013	5.11169
29	2.35657	2.71188	3.11865	3.58404	4.11614	5.41839
30	2.42726	2.80679	3.24340	3.74532	4.32194	5.74349

Years.	At 3 per Cent.	At 3½ per Cent.	At 4 per Cent.	At 4½ per Cent.	At 5 per Cent.	At 6 per Cent.
31	2·50008	2·90503	3·37313	3·91386	4·53804	6·08810
32	2·57508	3·00671	3·50806	4·08998	4·76494	6·45339
33	2·65234	3·11194	3·64838	4·27403	5·00319	6·84059
34	2·73191	3·22086	3·79432	4·46636	5·25335	7·25103
35	2·81386	3·33359	3·94609	4·66735	5·51602	7·68609
36	2·89828	3·45027	4·10393	4·87738	5·79182	8·14725
37	2·98523	3·57103	4·26809	5·09686	6·08141	8·63609
38	3·07478	3·69601	4·43881	5·32622	6·38548	9·15425
39	3·16703	3·82537	4·61637	5·56590	6·70475	9·70351
40	3·26204	3·95926	4·80102	5·81636	7·03999	10·28572

With the aid of the foregoing table we may calculate the interest, or amount, of any principal sum for any time, not more than forty years. For an example, take £523 for fifteen years, at five per cent. per annum, compound interest. In the table on the line 15, and column 5 per cent., is the amount of £1 viz.— 2·07393 This multiplied by the principal 523

gives the amount 1087·28039 or £1087 5s. 7½d. Therefore the interest is £564 5s. 7½d.

The lawfulness of taking any interest whatever has been sometimes agitated; and the school divines have stigmatised it as contrary to the divine law both natural and revealed. But the Mosaical precept was clearly a branch of the jurisprudential or political law of the Jews, and not a moral precept; for while it prohibited the Jews from taking usury of their brethren, it in express words (Deut. xxiii. 20), permitted them to take it of a stranger, which proves that the taking of moderate usury, as a reward for the use, for so the word signifies, is not malum in se; since it was allowed where any but an Israelite was concerned. As to the reason, deduced from the natural barrenness of money, ascribed to Aristotle, the same may with equal force be alleged of houses, which never breed houses; and of various other things, which nobody doubts it is lawful to let on hire. He who demands an exorbitant price for the accommodation wanted, acts unjustly and immorally in either case; but there is no good cause for blaming him in the one more than in the other.

Upon the two principles of inconvenience and hazard, compared together, different nations have at different times established different rates of interest. The Romans at one time allowed centissimæ, one per cent. monthly, or twelve per cent. per annum, to be taken for common loans; but Justinian reduced it to trientes, or one-third of the as or centissimæ, that is four per cent.; but allowed higher interest to be taken of merchants, because there the hazard is greater. Grotius informs us, that in Holland the rate of interest was then eight per cent. in common loans, but twelve to merchants. Our law establishes one standard for all alike, where the pledge or security itself is not put in jeopardy; lest, under the general pretence of vague and indeterminate

hazards, a door should be opened to fraud and usury; leaving specific hazards to be provided against by specific insurances, or by loans upon respondentia or bottoinry. But, as to the rate of legal interest, it has varied and decreased for 200 years past, according as the quantity of specie in the kingdom has increased by accessions of trade, the introduction of paper credit, and other circumstances. The statute 37 Hen.

VIII. c. 9, confined interest to ten per cent. and so did the statute 13 Eliz. c. 8. But as, through the encouragements given in her reign to commerce, the nation grew more wealthy; so, under her successor, the statute 21 Jac. I. c. 17 reduced it to eight per cent.; as did the statute 12 Car. II. c. 13, to six; and lastly, by the statute 12 Ann. st. 2, c. 16, it was brought down to five per cent. yearly, which is now the extremity of legal interest that can be taken. But yet, if a contract which carries interest be made in a foreign country, our courts will direct the payment of interest according to the law of that country in which the contract was made. Thus Irish, American, Turkish, and Indian interest, have been allowed in our courts to the amount of even twelve per cent. For the moderation or exorbitance of interest depends upon local circumstances; and the refusal to enforce such contracts would put a stop to all foreign trade. And, by statute 14 Geo. III. c. 79, all mortgages and other securities upon estates or other property in Ireland or the plantations, bearing interest not exceeding six per cent., shall be legal, though executed in the kingdom of Great Britain: unless the money lent shall be known at the time to exceed the value of the thing in pledge; in which case also, to prevent usurious contracts at home, under color of such foreign securities, the borrower shall forfeit treble the sum so borrowed.

The only case, in which compound interest is allowed, by the laws of Great Britain, is that of annuities.

INTERFERE', *v. n.* Lat. *inter* and *ferio*. To interpose; to intermeddle; to clash; to oppose each other. A horse is said to interfere, when the side of one of his shoes strikes against and hurts one of his fetlocks; or the hitting one leg against another, and striking off the skin.

If each acts by an independent power, their commands may interfere. *Smabridge's Sermons.*

So cautious were our ancestors in conversation, as never to *interfere* with party disputes in the state.

Swift.

I made no wars, I added no new imposts
I *interfered* not with their civic lives.

Byron. Tragedy. Sardanapalus.

So firm is my reliance on the arbitration of chance, that I can assure my readers, many is the good paper for the subject of which they are indebted to her *interference*.

Cunning. Microcosm.

INTERFLUENT, *adj.* Latin *interfluvius*. Flowing between.

Air may consist of any terrene or aqueous corpuscles, kept swimming in the *interfluent* celestial matter.

Bogie.

INTERFUL'GENT, *adj.* Lat. *inter* and *fulgens*. Shining between.

INTERFUSED', *adj.* Lat. *interfusus*. Poured or scattered between.

The ambient air wide *interfused*,
Embracing round this florid earth.

Milton.

INTERJA'CENCY, *n. s.* Lat. *interjeccio*. INTERJA'CENT, *adj.* The act of lying

INTERJECTION, *n. s.* { between; the thing lying between; the state of being interposed: and thus interjection is a part of speech that discovers the mind to be seized or affected with some passion: such as are in English, O ! alas ! ah !

The sea itself must be very broad, and void of little islands *interjacent*, else will it yield plentiful argument of quarrel to the kingdoms which it serveth.

Raleigh.

Laughing causeth a continual expulsion of the breath, with the loud noise which maketh the *interjection* of laughing.

Bacon.

England and Scotland is divided only by the *interjacency* of the Tweed and some desert ground.

Hale.

Their wild natural notes, when they would express their passions, are at the best but like natural *interjections*, to discover their passions or impressions.

Id. Origin of Mankind.

Its fluctuations are but motions, which winds, storms, shores, and every *interjacency* irregulates.

Browne.

INTERIM, *n. s.* Lat. *interim*. Mean time; intervening time.

I a heavy *interim* shall support,
By his dear absence.

Shakspeare. Othello.

One bird happened to be foraging for her young ones, and in this *interim* comes a torrent that washes away nest, birds, and all.

J. Estrange.

In this *interim* my women asked what I thought.

Tatler.

INTERIM, a name given to a formulary, or kind of confession of the articles of faith, obtruded upon the Protestants after Luther's death by the emperor Charles V., when he had defeated their forces; so called because it was only to take place in the interim, till a general council should have decided all points in dispute between the Protestants and Romanists. It retained most of the doctrines and ceremonies of the Romanists, excepting that of marriage, which was allowed to the clergy, and communion to the laity under both kinds. Most of the Protestants rejected it. There were two other interims; one of Leipsic, the other of Franconia.

INTERJOIN', *v. a.* Inter and join. To join mutually; to intermarry.

So fellest foes,

Whose passions and whose plots have broke their sleep,

To take the one-the other, by some chance.

Some trick not worth an egg, shall grow dear friends,

And *interjoin* their issues.

Shakespeare. Coriolanus, act. iv.

INTERIOR, *adj.* Lat. *interior*; Fr. *intérieur*. Internal; inner; not outward; not superficial.

The fool-multitude, that chuse by show,
Not learning more than the fond eye doth teach,
Which pry not to the *intérieur*.

Shakspeare.

The grosser parts, thus sunk down, would harden, and constitute the *intérieur* parts of the earth.

Burnet.

INTERKNOWLEDGE, *n. s.* Inter and knowledge. Mutual knowledge.

All nations have *interknowledge* one of another, either by voyage into foreign parts, or by strangers that come to them.

Bacon.

INTERLACE', *v. a.* Fr. *entrelacer*. To intermix; to put one thing within another.

Some are to be *interlaced* between the divine readings of the law and prophets.

Hooker.

The ambassadors *interlaced*, in their conference, the purpose of their master to match with the daughter of Maximilian.

Bacon.

They acknowledge what services he had done for the commonwealth, yet *interlacing* some errors, wherewith they seemed to reproach him.

Hayward.

INTERLAPSE', *n. s.* Inter and lapse. The flow of time between any two events.

These dregs are calcined into such salts, which, after a short *interlapse* of time, produce coughs.

Harvey.

INTERLARD', *v. a.* Fr. *entrelarder*. To mix meat with bacon, or fat; to diversify lean with fat: to interpose; to insert between.

Jests should be *interlarded*, after the Persian custom, by ages young and old.

Carew.

To diversify by mixture.

The laws of Normandy were the defloration of the English laws, and a transcript of them, though mingled and *interlarded* with many particular laws of their own, which altered the features of the original.

Hale's Laws of England.

Phillips has used this word very harshly, and probably did not understand it.

They *interlard* their native drinks with choice Of strongest brandy.

Phillips.

INTERLEAVE', *v. a.* Inter and leave. To chequer a book by the insertion of blank leaves.

INTERLINE', *v. a.* Lat. *inter* and *linca*.

INTERLINEA'TION, *n. s.* { To write in alternate lines; to correct by interposed lines.

When, by *interlining* Latin and English one with another, he has got a moderate knowledge of the Latin tongue, he may then be advanced farther.

Locke.

Three things render a writing suspected: the person producing a false instrument, the person that frames it, and the *interlining* and rasing out of words contained in such instruments.

Ayliffe's Parergon.

The muse invoked, sit down to write,

Swift.

Blot out, correct, and *interline*.

Swift.

Many clergymen write in so diminutive a manner,

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with such frequent blots and *interlineations*, that they are hardly able to go on without perpetual hesitations.

Id.

INTERLINK', *v. a.* Inter and link. To connect chains one to another; to join one in another.

The fair mixture in pictures causes us to enter into the subject which it imitates, and imprints it more deeply into our imagination and our memory: these are two chains which are *interlinked*, which contain, and are at the same time contained.

Dryden.

INTERLOCUTION, *n. s.* Lat. *inter* and *locutio*.

INTERLOC'TOR, *n. s.* Lat. *loquor*. Dia-

INTERLOC'UTORY, *adj.* Logue; alternate speech; a preparatory proceeding in law, before final decision, is called an interlocution: a person who talks with another, an interlocutor: interlocutory, a mode of speech which consists of dialogue.

The plainest and the most intelligible rehearsal of the psalms they favor not, because it is done by *interlocution*, and with a mutual return of sentences from side to side.

Hooker.

When the minister by exhortation raiseth them up, and the people by protestation of their readiness declare he speaketh not in vain unto them: these *interlocutory* forms of speech, what are they else but most effectual, partly testifications, and partly inflammations of all piety?

Id.

Some morose readers shall find fault with my having made the *interlocutors* compliment with one another.

Boyle.

These things are called accidental, because some new incident in judicature may emerge upon them, on which the judge ought to proceed by *interlocution*.

Ayliffe's Parergon.

INTERLOCUTORY DECREE, in English law. In a suit in equity, if any matter of fact be strongly controverted, the fact is usually directed to be tried at the bar of the court of king's bench, or at the assizes, upon a feigned issue. If a question of mere law arises in the course of a cause, it is the practice of the court of chancery to refer it to the opinion of the judges of the court of king's bench, upon a case stated for the purpose. In such cases, interlocutory decrees or orders are made.

INTERLOCUTORY JUDGMENTS are such as are given in the middle of a cause, upon some plea proceeding on default, which is only intermediate, and does not finally determine or complete the suit. But the interlocutory judgments most usually spoken of are those incomplete judgments whereby the right of the plaintiff is established, but the quantum of damages sustained by him is not ascertained, which is the province of a jury. In such a case a writ of enquiry issues to the sheriff, who summons a jury, enquires of the damages, and returns to the court the inquisition so taken, whereupon the plaintiff's attorney taxes costs, and signs final judgment. Interlocutory order is that which decides not the cause, but only settles some intervening matter relating to the cause. As, where an order is made in chancery for the plaintiff to have an injunction, to quit possession till the hearing of the cause; this order, not being final, is called interlocutory.

INTERLOPER, *n. s.* Lat. *inter* and *Dut.*

INTERLOP', *v. n.* *loopen.* To run be-

tween parties and intercept the advantage that one should gain from the other; to traffic without a proper license; to forestall; to anticipate irregularly: interloper, one who runs into business where he has no right; an officious intruder.

The swallow was a fly-catcher, and was no more an *interloper* upon the spider's right, than the spider was upon the swallow's.

L'Estrange.

The patron is desired to leave off this *interloping* trade, or admit the knights of the industry to their share.

Tatler.

INTERLU'CENT, *adj.* Latin, *interlucens*. Shining between.

INTERLUDE, *n. s.* Lat. *inter* and *Iudicis*. Something played at the intervals of festivity; a farce.

When there is a queen, and ladies of honor attending her, there must sometimes be masques, and revels, and *interludes*.

Bacon.

Dreams are but *interludes*, which fancy makes; When monarch reason sleeps, this mimick wakes.

Dryden.

INTERLU'ENCY, *n. s.* Latin, *interluo-* Water interposed; interposition of a flood.

Those parts of Asia and America, which are now disjoined by the *interluency* of the sea, might have been formerly contiguous.

Haike.

INTERLU'NAR, *adj.* Lat. *inter* and *luna*.

INTERLU'NARY, *adj.* Belonging to the time when the moon, about the change, is invisible

The sun to me is dark,
And silent as the moon,

When she deserts the night,
Hid in her vacant *interlunar* cave.

Milton.

We add the two Egyptian days in every month, the *interlunar* and plenilunar exemptions.

Browne.

INTERMAR'RY, *v. n.* Inter and marriage.

INTERMAR'RIAGE, *n. s.* Marriage between two families.

Because the alliances and *intermarriages*, among so small a people, might obstruct justice, they have a foreigner for judge of St. Marino.

Addison.

About the middle of the fourth century from the building of Rome, it was declared lawful for nobles and plebeians to *intermarry*.

Swift.

INTERMED'DLE, *v. n. & v. a.* Fr. *en-*

INTERME'DLER, *n. s.* Fr. *trembler*.

To interpose officially; to intermix, or mingle; perhaps for *intermeddler*: intermeddler, one who interferes in the business of others without right.

Many other adventures are *intermeddled*; as the love of Britomart and the virtuousness of Belphoebe.

Spenser.

The practice of Spain hath been by war, and by conditions of treaty, to *intermeddle* with foreign states, and declare themselves protectors-general of Catholicks.

Bacon.

There were no ladies who disposed themselves to *intermeddle* in business.

Clarendon.

There's hardly a greater pest to government and families, than officious tale-bearers, and busy *intermeddlers*.

L'Estrange.

Shall strangers, saucy *intermeddlers!* say, Thus far, and thus, are you allowed to punish?

A. Phillips.

INTERME'DIACY, *n. s.* Lat. *inter* and *medius*.

INTERME'DIAL, *adj.* Interpo-

INTERME'DIATE, *adj.* Sition for good:

INTERME'DIATELY, *adv.* intermediary, lying between: intermediate, holding the middle

place between extremes : intermediately, by way of intervention.

The love of God makes a man temperate in the midst of feasts, and is active enough without any *intermedial* appetites. *Taylor.*

A gardener prepares the ground, and in all the *intermedial* spaces he is careful to dress it. *Evelyn.*

Do not the most refrangible rays excite the shortest vibrations for making a sensation of a deep violet, the least refrangible the largest for making a sensation of deep red, and the several *intermediate* sorts of rays, vibrations of several *intermediate* bignesses, to make sensations of the several *intermediate* colors ? *Newton's Opticks.*

Those general natures, which stand between the nearest and most remote, are called *intermediate*. *Watts.*

INTERMELL', *v. a.* Fr. *entremeler*. To mix; to mingle. Not in use.

By occasion hereof many other adventures are *intermettled*, but rather as accidents than intendments. *Spenser.*

INTER'MENT, *n. s.* Fr. *interment*; and from *inter*. Burial; sepulchre. See **INTER**.

By the ducal order
To forward the preparatory rites
For the late Foscari's *interment*.

Byron, Tragedy. Tito Foscari.

INTERMENT is the act of burying or depositing a deceased person in the earth. Placing the body in a cave was probably the most ancient method of disposing of the dead; and appears to have been propagated by the Phœnicians throughout the countries to which they sent colonies. When an ancient hero died or was killed in a foreign expedition, as his body was liable to corruption, and for that reason unfit to be transported entire, they fell on the expedient of burning, in order to bring home the ashes, to oblige the manes to follow; that so his country might not be destitute of the benefit of his tutelage. Hence burning seems to have had its origin; and by degrees it became common to all who could bear the expense of it, and took place of the ancient burying: thus catacombs became disused among the Romans, after they had borrowed the manner of burning from the Greeks, and then none but slaves were laid in the ground. See **BURIAL**, **CATACOMBS**, and **FUNERAL RITES**.

History records many traces of the respect which the Indians, Egyptians, and Syrians, paid to the dead. The Romans, in the infancy of their empire, paid little attention to their dead. Acilius Aviola, having fallen into a lethargic fit, was supposed to be dead; he was therefore carried to the funeral pile; the fire was lighted up; and, though he cried out he was still alive, he perished for want of speedy assistance. The Praetor Lamia met with the same fate. Tubero, who had been Praetor, was saved from the funeral pile. Diogenes Laertius tells us, that Empedocles, in the 84th Olympiad, restored to life Ponthia, a woman of Agrigentum, when she was about to be interred. Asclepiades, a physician, who lived in the time of Pompey the Great about A. A. C. 120, returning from his country house, observed near the walls of Rome a grand convoy and a crowd of people, who

were in mourning assisting at a funeral. He approached the supposed dead body, and, imagining that he perceived signs of life in it, he ordered the bystanders to take away the flambeaux, to extinguish the fire, and to pull down the funeral pile. A murmur on this arose among the company. Some said that they ought to believe the physician, while others turned both him and his profession into ridicule. The relations, however, yielded to the remonstrances of Asclepiades; they consented to defer the obsequies for a little; and the consequence was the restoration of the supposed dead person to life. These examples, and several others of the like nature, induced the Romans to delay funerals longer, and to enact laws to prevent precipitate interments.

The Greeks also established laws for the protection of the dead. At Athens the law required that no person should be interred before the third day; and in the greater part of the cities of Greece a funeral did not take place till the sixth or seventh. When a man appeared to have breathed his last, his body was generally washed by his nearest relations, with warm water mixed with wine. They afterwards anointed it with oil; and covered it with a dress made of fine linen. The body was afterwards laid upon a couch in the entry of the house, where it remained till the time of the funeral. At the magnificent obsequies with which Alexander honored Hephaestion the body was not burned till the tenth day. At Rome the nearest relations generally closed the eyes of the deceased; and the body was bathed with warm water, either to render it fitter for being anointed with oil, or to reanimate the principle of life, which might remain suspended without manifesting itself. On the second day, after the body had been washed a second time, it was anointed with oil and balm. On the third day the body was clothed according to its dignity and condition. On the fourth, the body was placed on a couch, and exposed in the vestibule of the house, with the face turned towards the entrance, and the feet near the door; in this situation it remained till the end of the week. Near the couch were lighted wax-tapers, a small box in which perfumes were burnt, and a vessel full of water for purification, with which those who approached the body besprinkled themselves. On the eighth day the funeral rites were performed (see **FUNERAL**); but, to prevent the body from corrupting before that time, salt, wax, the resinous gum of the cedar, myrrh, honey, balm, gypsum, lime, asphaltes, or bitumen of Judea, and several other substances, were employed. The body was carried to the pile with the face uncovered, unless wounds or the nature of the disease had rendered it loathsome and disgusting. In such a case a mask was used, made of a kind of plaster. This method of concealment was employed by Nero, after having caused Germanicus to be poisoned: for the effect of the poison had become very visible, by livid spots and the blackness of the body; but a shower of rain happening to fall, it washed the plaster entirely away, and thus the horrid crime of fratricide was discovered. In the primitive church the dead were washed and then anointed;

the body was wrapped up in linen, or clothed in a dress of more or less value according to circumstances, and it was not interred until after being exposed and kept some days in the house.

In Britain bodies generally remain unburied three or four days, often not so long. In many other places, and on many occasions in all places, too much precipitation attends this office; or at least there is a great neglect of due precautions in regard to the body. As soon as the semblance of death appears, the chamber of the sick is generally deserted by friends, relatives, and physicians; and the apparently dead, though frequently living body, is committed to the management of an ignorant and unfeeling nurse, whose care extends no farther than laying the limbs straight, and securing her accustomed perquisites. The bed-clothes are immediately removed, and the body is exposed to the air. This, when cold, must extinguish any spark of life that may remain, and which, by a different treatment, might have been kindled into a flame; or it may only continue to repress it, and the unhappy person afterwards revive amidst the horrors of the tomb.

The difficulty of distinguishing a person apparently dead from one who is really so, has, in all countries where bodies have been interred too precipitately, rendered it necessary for the law to interfere. At Geneva there are people appointed to inspect all dead bodies; to examine whether the person be really dead, and whether one died naturally or by violence. In the north, as well as in Genoa, it is usual not to bury the dead till after three days. In Holland people carry their precautions much farther, and delay the funerals longer.

Not only the ordinary signs of death are very uncertain, but we may say the same of the stiffness of the limbs, which may be convulsive; of the dilation of the pupil of the eye, which may proceed from the same cause. Haller, convinced of the uncertainty of all these signs, proposes a new one, which he considers as infallible. ‘If the person,’ says he, ‘be still in life, the mouth will immediately shut of itself, because the contraction of the muscles of the jaw will awaken their irritability.’ Life is preserved a long time in the passage of the intestines. The sign pointed out by Dr. Fothergill appears to deserve more attention. ‘If the air blown into the mouth,’ says this physician, ‘passes freely through all the alimentary channel, it affords a strong presumption that the irritability of the internal sphincters is destroyed, and consequently that life is at an end.’ The Turks wash the bodies of their dead before interment. As their ablutions are complete, and no part of the body escapes their attention, they easily perceive whether one be dead or alive, by examining, among other things, whether the sphincter ani has lost its power of contraction. If this muscle still remains contracted, they warm the body and endeavour to recall it to life.

INTERMIGRATION, *n. s.* Fr. *intermigation*; Lat. *inter* and *migro*. Act of removing from one place to another, so as that, of two parties removing, each takes the place of the other.

Men have a strange variety in colour, stature, and humour; and all arising from the climate, though the continent be but one, as to point of access, mutual intercourse, and possibility of *intermigrations*.

Hale's Origin of Mankind.

INTERMINABLE, *adj.* Lat. *in* and *ter-*
INTERMINATE, *adj.* } *minus*. Immense,

INTERMINATION, *n. s.* without limit or boundary: an intermination is a menace or threat, from Lat. *internino*.

Within a thicket I repos'd; when round
I ruffled up fallen leaves in heaps, and found,
Let fall from heaven, a sleep *interminate*.

Chapman's Odyssey.

The threats and *interminations* of the Gospel, those terrors of the Lord, as goads may drive those brutish creatures who will not be attracted.

Decay of Piety.

As if they would confine the *interminable*,
And tie him to his own prescript.

Milton. Agonistes.

What are ye? what
Is this blue wilderness of *interminable*?
Air, where ye roll along, as I have seen
The leaves along the limpid streams of Eden?

Byrou. Cain.

INTERMINGLE, *v. a.* Inter and mingle. To mingle; to mix; to put some things amongst others.

The church in her liturgies hath *intermingled*, with readings out of the New Testament, lessons taken out of the law and prophets.

Hooker.

My lord shall never rest:
I'll *intermingle* every thing he does
With Cassio's suit.

Shakspeare. Othello.

Here sailing ships delight the wandering eyes;
There trees and *intermingled* temples rise.

Pope.

INTERMISSION, *n. s.* Fr. *intermission*; Lat. *inter* and *mitti*.

INTERMIT', *v. a.* Lat. *inter* and *mitto*. Cessation for a

INTERMIT'TENT, *adj.* time; pause; intervening time; the state of intermission: the space between the paroxysms of fever is an *intermission*: intermit, to come by fits; to deviate from regularity; thus an intermittent pulse loses a beat at intervals; to grow mild and free from fever when the paroxysm is over; to cease from giving severe pain.

If nature should *intermit* her course, and leave altogether, though it were but for a while, the observation of her own laws.

Hooker.

Came a reeking post,
Delivered letters, spight of *intermission*,
Which presently they read.

Shakspeare. King Lear.

Run to your houses, fall upon your knees;
Pray to the gods to *intermit* the plague.
That needs must light on this ingratitude.

Shakspeare.

I count *intermission* almost the same thing as change; for that that hath been *intermittent* is after a sort new.

Bacon.

Words borrowed of antiquity have the authority of years, and out of their *intermission* do win to themselves a kind of grace-like newness.

Ben Jonson.

Pleasure is nothing but the *intermission* of pain, for the enjoying of something I am in great trouble for till I have it.

Selden.

Rest or *intermission* none I find.

Milton.

Adam estranged in look and altered style,
Speech *intermitt* thus to Eve renewed :
Would thou hadst hearkened to my words and staid
With me as I besought thee. *Id. Paradis? Lost.*

As though the : were any feriation in nature, or
justitiums imaginable in professions, whose subject
is under no *intermissio* but constant way of initation,
this season is commonly termed the physicians' vacation.
Browne's Vulgar Errors.

We are furnished with an armour from Heaven,
but if we are remiss, or persuaded to lay by our
arms, and *intermit* our guard, we may be surprised.
Rogers.

But, as he had some lucid *intermissions*,
She next decided he was only bad.

Yet, when they asked her for her depositions,
No sort of explanation could be had. *Byron.*

INTERMIX', *v. a. & v. n.* { Lat. *intr* and
INTERMIX'TURE, *n. s.* { *misceo*. To mingle or mix together: intermixture, a mass formed
by mingling bodies together; a mixture.

In this height of impiety there wanted not an *intermixtive* of levity and folly. *Bacon's Henry VI.*

Her persuasions she *intermixed* with tears, affirming,
that she would depart from him. *Hayward.*

Reveal

To Adam what shall come in future days,
As I shall thee enlighten: *intervir*
My covenant in the woman's seed renewed.
Milton.

I doubt not to perform the part of a just historian
to my royal master, without *intermixting* with it any
thing of the poet. *Dryden.*

INTERMUNDANE, *adj.* Lat. *inter* and
mundus. Subsisting between worlds, or between
orb and orb.

The vast distances between these great bodies are
called *intermundane* spaces; in which, though there
may be some fluid, yet it is so thin and subtle, that
it is as much as nothing. *Locke.*

INTERMURAL, *adj.* Lat. *inter*, *muralis*,
murus. Lying between walls.—*Ainsworth.*

INTERMUTUAL, *adj.* Inter and mutual.
Mutual; interchanged. Inter before mutual is
improper.

A solemn oath religiously they take,
By *intermutual* vows protesting there,
This never to reveal, nor to forsake
So good a cause. *Daniel's Civil War.*

INTERN, *adj.* { Fr. *interne*; Lat. *in-*
INTERNAL, *adj.* { *ternus*. Inward; intes-

INTER'NALLY, *adv.* { time; intrinsic; real;
internally, within; mentally; intellectually.

The midland towns are most flourishing, which
shews that her riches are *intern* and domestick.
Howel.

We are symbolically in the sacrament, and by
faith and the spirit of God *internally* united to
Christ. *Taylor.*

That ye shall be as gods, since I as man,
Internal man, is but proportion meet. *Milton.*

Myself, my conscience, and *internal* peace. *Id.*

If we think most men's actions to be the inter-
preters of their thoughts, they have no such *internal*
veneration for good rules. *Locke.*

For praise 'oo dearly loved, or warmly sought,
Enfeebles all *internal* strength of thought.
Goldsmith. Traveller.

But there is a wide distinction between her *in-*
ternal regulations and foreign aggressions upon her.
Canning's Speeches.

INTERNE'CINE, *adj.* { Lat. *internectus*.
INTERNE'CION, *n. s.* { Endeavouring mu-
tual destruction: massacre; slaughter.

That natural propensity of self-love, and natural
principle of self-preservation, will necessarily break
out into wars and *interne'cions*.

Hale's Origin of Mankind.

The Egyptians worshipped dogs, and for
Their faith made *interne'cine* war. *Hudibras.*

INTERNUN'CIO, *n. s.* Lat. *internuncius*.
Messenger between two parties.

INTERPELLATION, *n.s.* Fr. *interpellation*;
Lat. *interpellatio*. A summons; a call upon.

In all extracts judicial one citation, monition, or
extrajudicial *interpellation*, is sufficient. *Ayliffe.*

INTER'POLATE, *v. a.* { Fr. *interpoler* ;

INTERPOLAT'ION, *n. s.* { Lat. *interpolo*. To

INTER'POLATOR, *n. s.* { put any thing into a
place to which it does not belong; to renew:
interpolation is something added between the
original matter.

This motion of the heavenly bodies themselves
seems to be partly continued and uninterrupted, as
that motion of the first moveable, partly *interpolated*
and interrupted. *Hale.*

I have changed the situation of some of the Latin
verses, and made some *interpolations*.
Cromwell to Pope.

The Athenians were put in possession of Salamis
by another law, which was cited by Solon, or, as some
think, *interpolated* by him for that purpose. *Pope.*

You or your *interpolator* ought to have considered.
Swift.

INTERPO'SAL, *n. s.* { Fr. *interposer*; Lat.

INTERPOSE', *v. a. & v. n.* { *interpono*. Agency

INTERPO'SER, *n. s.* { between two par-
INTERPOSITION, *n. s.* { ties; any thing
coming between: to place between; to thrust
in as an obstruction; to offer as a relief; to me-
diate or interrupt: interposition, any thing inter-
posed; a mediation, generally in a good
sense.

I will make haste; but, 'till I come again,
No bed shall c'er be guilty of my stay;

No rest be *interposer* 'twixt us twain. *Shakspeare.*

The nights are so cold, fresh, and equal, by reason
of the intire *interposition* of the earth, as I know of
no other part of the world of better or equal temper.
Raleigh.

Some weeks the king did honourably *interpose*,
both to give space to his brother's intercession, and
to show that he had a conflict with himself what he
should do. *Bacon.*

A shelter, and a kind of shading cool
Interposition, as a summer's cloud. *Milton.*

Our overshadowed souls may be emblazoned by
intercepted globes, whose influential emissions are inter-
cepted by the *interposal* of the beauteous element.
Glanville's Sepsis.

The *interposal* of my lord of Canterbury's com-
mand, for the publication of this mean discourse,
may seem to take away my choice. *South.*

The town and abbey would have come to an open
rupture, had it not been timely prevented by the
interposition of their common protectors. *Addison.*

There never was a time when the *interposition* of
the magistrate was more necessary to secure the
honour of religion. *Attarbury.*

Human frailty will too often *interpose* itself among
persons of the holiest function. *Swift.*

Suppose, unlooked for in a scene so rude,

Long hid by *interposing* hill or wood. *Cooper.*

With regard to myself, as well as others, the rage of despotism has been checked, and the triumphs of tyranny interrupted, by the *interposition* of parental authority.

Canning. Microcosm.

INTER'PRET, *v. a.* Fr. *interpréter*; Latin *interpretor*. To decipher; to give a solution; to expound: interpretatively.

INTER'PRETER, *n.s.* J pretable, capable of being expounded: interpretation, the act of interpreting; the sense given; the power of explaining: interpretatively, as may be collected by interpretation: interpreter, an expositor or translator.

Pharaoh told them his dreams: but there was none that could interpret them unto him.

Giu. xli. 8.

If it be obscure or uncertain what they meant, charity, I hope, constraineth no man, which standeth doubtful of their minds, to lean to the hardest and worst interpretation that their words can carry.

Hooker.

Look how we can, or sad, or merrily, Interpretation will misquote our looks. *Shakspeare.*

You should be women,

And yet your beards forbid me to interpret That you are so. *Id. Macbeth.*

What we oft do best.

By sick interpreters, or weak ones, is Not ours, or not allowed: what worst, as oft, Hitting a grosser quality, is cried up For our best act. *Id. Henry VIII.*

We beseech thee to prosper this great sign, and to give us the interpretation and use of it in meicy.

Bacon.

Though the croed apostolick were sufficient, yet when the church hath erected that additional bulwark against hereticks, the rejecting their additions may justly be deemed an interpretative siding with heresies.

Hammond.

We think most men's actions to be the interpreters of their thoughts. *Locke.*

By this provision the Almighty interpretatively speaks to him in this manner: I have now placed thee in a well-furnished world.

Ray on the Creation.

In the beginning the earth was without form and void; a fluid, dark, confused mass, and so it is understood by interpreters, both Hebrew and Christian.

Burnet.

How shall any man, who hath a genius for history, undertake such a work with spirit, when he considers that in an age or two he shall hardly be understood without an interpreter. *Swift.*

Sacred interpreter of human thought,
How few respect or use thee as they ought.

Cowper. Conversation.

Why, what other
Interpretation should it bear?

Byron. Tragedy. Sardanapalus.

INTERPUNCTION, *n.s.* Fr. *interpunction*; Lat. *interpungo*. Pointing between words or sentences.

INTERREIGN', *n.s.* Lat. *inter* and *regnum*.

INTERREGNUM, *n.s.* The time in which a throne is vacant between the death of a prince and accession of another.

The king knew there could not be any interreign or suspension of title. *Bacon's Henry VII.*

He would shew the queen my memorial, with the first opportunity, in order to have it done in this interregnum or suspension of title. *Swift.*

An INTERREGNUM can only happen in an elective kingdom, or in those anarchical governments where the rules of succession to the throne are not fixed by law. In an hereditary monarchy, whether absolute like that of Spain, or limited like that of Great Britain, there can be no interregnum, as no vacancy occurs between the death of one monarch and the accession of another; unless in the case of a disputed succession or a revolution, such as happened upon the abdication and flight of James II. The interregnum on that occasion lasted two months longer in Scotland than in England. See ENGLAND.

INTERREX, a magistrate who governs during an interregnum, or in the interval between the death of a monarch and the election or inauguration of his successor. This magistrate was first established in ancient Rome, and was almost as old as the city itself. After the death of Romulus there was an interregnum of a year, during which the senators were each interrex in their turn, five days a-piece. After the establishment of consuls, and a commonwealth, although there were no kings, yet the name and functions of the interrex were still preserved; for when the magistrates were absent, or when there was any irregularity in their election, or they had abdicated, so that the comitia could not be held, provided they were unwilling to create a dictator, they chose an interrex, whose office and authority were to last five days. To the interrex was delegated all the regal and consular authority, and he performed all their functions. He assembled the senate, held comitia, or courts, and took care the election of magistrates was according to the rules. The patricians alone had the right of electing an interrex.

INTERROGA'TE, *v.n.&v.a.* Fr. *interroger*.

INTERROGA'TION, *n.s.* ger; Lat. *interrogatio*.

INTERROGATIVE, *adj. & n.s.* and *rogō*. To examine; to interrogate.

INTERROGATIVELY, *adv.* To examine; to interrogate.

INTERROGA'TOR, *n.s.* question: the interrogator.

INTERROGA'TORY, *n.s. & adj.* act of questioning: interrogatory, a sentence which contains a question: interrogatively, in a manner which expresses a question: interrogation, a note that marks a question: interrogator, the person enquiring: interrogative, a pronoun used in putting questions, as who? or what?

But all his fantasie
Was turned for to lerne astrologie;
And conde a certain of conclusions
To demen by interrogations,
If that men asked him, in certain houres,
Whan that men shulde have drought or elles shoures.

Chaucer. The Milleres Tale.

Nor time, nor place,
Will serve long interrogatories.

Shakspeare. Cymbeline.

By his instructions, touching the queen of Naples, it seemeth he could interrogate touching beauty.

Bacon's Henry VII.

His proof will be retorted by interrogating, shall the adulterer and the drunkard inherit the kingdom of God?

Hammond.

He with no more civility began in captious manner to put interrogatories unto him.

Sidney.

The examination was summed up with one question, Whether he was prepared for death? The boy

was frightened out of his wits by the last dreadful interrogatory.

Addison.

Pray you, spare me
Further interrogation, which boots nothing
Except to turn a trial to debate.

Byron. *Marino Faliero.*

INTERROGATION, Gr. *ερωτησις*, erotesis, in rhetoric, is a figure in which the speaker introduces something by way of question, to make its truth more conspicuous. This figure is suited to express most passions and emotions of the mind; it serves also to bear down an adversary, and generally adds force, and variety, to discourse.

INTERROGATORY, in law, is a particular question demanded of a witness examined in a cause, especially in the court of Chancery. These interrogatories must be exhibited by the parties in suit on each side; which are either direct for the party that produces them, or counter, on behalf of the adverse party; and generally both plaintiff and defendant may exhibit direct, and counter, or cross interrogatories. They must be pertinent, and only to the points necessary; and either drawn or perused by counsel, and signed by them.

INTERRUPT, *v. a. & adj.* Fr. *interrompre*.
INTERRUPTEDLY, *adv.* *pre*; Lat. *inter-*
INTERRUPTER, *n. s.* } and *rumpo*. To
INTERRUPTION, *n. s.* hinder, whether
persons or processes; to rescind; to divide: in-
terrupt, containing a chasm: interruption, inter-
position; hindrance; intermission.

Answer not before thou hast heard the cause;
neither interrupt men in the midst of their talk.

Eccles. xi. 8.

Bloody England into England gone,
O'erbearing interruption, spite of France.

Shakspeare.

Rage doth rend

Like interrupted waters, and o'erbear
What they are used to bear.

Id.

Seest thou what rage

Transports our adversary, whom no bounds,
Nor yet the main abyss wide interrupt, can hold?

Milton.

Places severed from the continent by the interruption
of the sea.

Hale's *Origin of Mankind.*

This motion of the heavenly bodies seems partly
uninterrupted, as that of the first moveable interpolated
and interrupted.

Hale.

The incident light that meets with a grosser liquor
will have its beams either refracted or imbibed, or
else reflected more or less interruptedly than they
would be, if the body had been unmoistened.

Boyle on Colours.

You are to touch the one as soon as you have
given a stroke of the pencil to the other, lest the interruption
of time cause you to lose the idea of one
part.

Dryden's *Dufresnoy.*

Amidst the interruptions of his sorrow, seeing his
penitent overwhelmed with grief, he was only able to
bid her be comforted.

Addison.

It suffers interruption and delay,
And meets with hindrance in the smoothest way.

Cooper. *Progress of Error.*

INTERSCAP'ULAR, *adj.* Lat. *inter* and
scapula. Placed between the shoulders.

To INTERSCI'DY, *v. a.* Lat. *inter* and *scindo*.
To cut off by interruption.

To INTERSCRIBE, *v. a.* Lat. *inter* and
scribo. To write between.

INTERSE'CANT, *adj.* Lat. *inter* and *secor*.
INTERSECT', *v. a. & v. n.* } To divide each other
INTERSECTION, *n. s.* } mutually; to cut; to
meet and cross each other: intersection, the
point where lines cross each other.

Perfect and vivacious quadrupeds so stand in
their position of prudence, that the opposite joints
of neighbour legs consist in the same plane; and a
line descending from their navel intersects at right
angles the axis of the earth.

Browne.

The first star of Aries, in the time of Meton the
Athenian, was placed in the very intersection which
is now elongated, and moved eastward twenty-eight
degrees.

Id.

The sagittal suture usually begins at that point
where these lines intersect.

Wiseman's *Surgery.*

Lands intersected by a narrow frith
Abhor each other.

Couper's *Task.*

INTERSECTION, in mathematics, is the cutting
of one line, or plane, by another; or the point
or line wherein two lines, or two planes cut each
other. The mutual intersection of two planes is
a right line. The centre of a circle is in the
intersection of two diameters. The central point
of a regular or irregular figure of four sides, is
the point of intersection of the two diagonals.

INTERSERT, *v. a.* } Lat. *intersero*. To
INTERSERTION, *n. s.* } put in between other
things.

These two *intersertions* were clear explications of
the apostle's old form, God the father, ruler of all,
which contained an acknowledgment of the unity.

Hammond.

If I may *intersert* a short speculation, the depth of
the sea is determined in Pliny to be fifteen furlongs.

Brewood.

INTERSPERSE, *v. a.* } Lat. *interspersus*.
INTERSPERSION, *n. s.* } To scatter about here
and there.

It is the editor's interest to insert what the au-
thor's judgment had rejected; and care is taken to
intersperse these additions, so that scarce any book
can be bought without purchasing something un-
worthy of the author.

Swift.

For want of the *interspersion* of now and then an
elegiac or a lyric ode.

Watts on the Mind.

Parks in which art precepess Nature weds,
Nor gardens interspersed with flowery beds.

Cooper. *Retirement.*

It would be an endless task to point out every
latent beauty, every unnoticed elegance, with which
these productions are interspersed.

Canning. *Microcosm.*

INTERSTEL'LAR, *adj.* Lat. *inter* and *stella*.
Intervening between the stars.

The *interstellar* sky hath so much affinity with the
star, that there is a rotation of that as well as of the
star.

Bacon.

INTERSTELLAR is used to express those parts
of the universe, that are beyond the limits of our
solar system. In the interstellar regions, it is sup-
posed there are many other systems of planets
moving round the fixed stars, as the centres of
their respective motions. And as it is probable
that each fixed star is thus a sun to a number of
habitable orbs, or earths, that move round it, the
interstellar world must be infinitely the greatest
part of the universe. See *ASTRONOMY*.

INTER'STICE, *n. s.* } Fr. *interstice*; Lat. *inter-*

INTERSTITIAL, *adj.* } and *sto*. Space between
one thing and another: containing interstices.

In oiled papers, the *interstitial* division, being actuated by the accession of oil, becometh more transparent. *Browne.*

The sun shining through a large prism upon a comb placed immediately behind the prism, his light, which passed through the *interstices* of the teeth, fell upon a white paper: the breadths of the teeth were equal to their *interstices*, and seven teeth together with their *interstices* took up an inch. *Newton.*

INTERTEXTURE, *n. s.* Lat. *intertexo*. Diversification of things mingled or woven one among another.

INTER-TIES, or **INTERDUCES**, in architecture, small pieces of timber, which lie horizontally between the summers, or between them and the cell or raising plate.

INTERTWINE', *v. a.* { Inter and twine, or **INTERTWIST'**. } twist. To unite by twisting one in another.

Under some concourse of shades,
Whose branching arms thick *intertwined* might shield
From dews and damps of night his sheltered head. *Milton.*

"Tis sad to hack into the roots of things,
They are so much *intertwisted* with the earth:
So that the branch a goodly verdure flings,
Freck not if an acorn gave it birth. *Byron. Don Juan.*

INTERVAL, *n. s.* Fr. *intervalle*: Lat. *inter-*
vallum. Space between places; interstice; vacuity; space unoccupied; void place; vacancy; vacant space.

With any obstacle let all the light be now stopped which passes through any one *interval* of the teeth, so that the range of colours which comes from thence may be taken away, and you will see the light of the rest of the ranges to be expanded into the place of the range taken away, and there to be coloured. *Newton's Opticks.*

Time passing between two assignable points. The century and half following was a very busy period, the *intervals* between every war being so short. *Swift.*

These were the chief: each *interval* of Night
Was graced with many an undulating light. *Couper. Table Talk.*

Short as the *interval* is since I last met you in this place on a similar occasion, the events which have filled up that *interval* have not been unimportant. *Canning's Speeches.*

Remission of a delirium or distemper. Though he had a long illness, considering the great heat with which it raged, yet his *intervals* of sense being few and short, left but little room for the offices of devotion. *Atterbury.*

Some *intervals* of abstinence are sought
To edge the appetite; thou seekest none. *Blair.*

INTERVAL, in music. The distance between any given sound and another, strictly speaking, is neither measured by any common standard of extension nor duration; but either by immediate sensation, or by computing the difference between the numbers of vibrations produced by two or more sonorous bodies, in the act of sounding during the same given time. As the vibrations are slower and fewer during the same instant, for example, the sound is proportionally lower or graver; on the contrary, as during the same period the vibrations increase in number and velocity, the sounds are proportionably higher or more acute. An interval in music

therefore, is properly the difference between the number of vibrations produced by one sonorous body of a certain magnitude and texture, and of those produced by another of a different magnitude and texture in the same time.

Intervals are divided into consonant and dissonant. A consonant interval is that whose extremes, or whose highest and lowest sounds, when simultaneously heard, coalesce in the ear, and produce an agreeable sensation, called by lord Kames a *tertium quid*. A dissonant interval, on the contrary, is that whose extremes, simultaneously heard, far from coalescing in the ear, and producing one agreeable sensation, are each of them plainly distinguished from the other, produce a grating effect upon the sense, and repel each other with an irreconcileable hostility. In proportion to the vibrations of different sonorous bodies, or of the same given time, the chords are more or less perfect, and consequently the intervals more or less consonant. When these vibrations never coincide at all, in the same given time, the discord is consummate, and consequently the interval absolutely dissonant.

Intervals are not only divided according to their natures, but also with respect to their degrees. In this view they are either enharmonic, chromatic, or diatonic. Of these therefore in their order, from the least to the greatest. An enharmonic interval is what they call the eighth part of a tone, or the difference between a major and minor semitone, generally distinguished by the name of a comma. For a more minute disquisition of this matter, our readers may consult the article **COMMA** in the Musical Dictionary, or the article **MUSIC** in this work. A chromatic interval consists properly of a minor semitone, but may also admit the major. A diatonic interval consists of a semitone-major at least, but may consist of any number of tones within the octave. When an octave higher or lower is assumed, it is obvious that we enter into another scale which is either higher or lower, but still a repetition of the former degrees of sound.

Intervals again are either simple or compound. All the intervals within any one octave are simple; such as the second major or minor, the third, the fourth, the fifth, the sixth, the seventh, &c.—Of these afterwards. All intervals whose extremes are contained in different octaves, such as the ninth, the tenth, the eleventh, the twelfth, the thirteenth, the fourteenth, the fifteenth, &c., may be termed compound intervals. The semitone either exactly or nearly divides the tone into two equal parts. In the theory of harmonical computation three kinds of semitones are recognised, viz. the greatest, the intermediate, and the smallest semitone. But in practice, to which these explications are chiefly adapted, the semitone is only distinguished into major and minor. The semitone major is the difference between the third major and the fourth, as E F. Its ratio is as fifteen to sixteen, and it forms the least of all diatonic intervals. The semitone minor consists of the difference between the third major and minor: it may be marked in the same degree by a sharp or a flat, and it only forms a chromatic interval; its ratio

is as 24 to 25. Though some distinction is made between these semitones by the manner of marking them, yet on the organ and harpsichord no distinction can be made; nor is there any thing more common for us than to say, that D sharp in rising is E flat in descending, and so through the whole diapason above or below; besides the semitone is sometimes major and sometimes minor, sometimes diatonic, and sometimes chromatic, according to the different modes in which we compose or practise; yet in practice these are called semitones-minor, which are marked by sharps or flats, without changing the degree; and semitones major are those which form the interval of a second. With respect to the three semitones recognised in theory, the greatest semitone is the difference between a tone major and a semitone minor; and its ratio is as 25 to 27. The intermediate semitone is the difference between a semitone major and a tone major; and its ratio is as 128 to 135. In a word, the small semitone consists of the difference between the greatest and the intermediate semitone; and its ratio is as 125 to 128. Of all these intervals, there is only the semitone major, which is sometimes admitted as a second in harmony. The interval of a tone which characterises the diatonic species of composition, is either major or minor. The former consists of the difference between the fourth and fifth; and its ratio is as 8 to 9; and the latter, whose ratio is as 9 to 10, results from the difference between the third minor and the fourth. Seconds are distinguished into four kinds: two of which are not in practice sufficiently momentous to be mentioned. The second major is synonymous with the intervals of a tone; but, as that tone may be either major or minor, its ratio may be either as 8 to 9, or as 9 to 10. The second minor consists of the distance from B to C, or from EF; and its ratio is as 15 to 16. The third is so called because it consists of two gradations, or three diatonic sounds, as from G to B ascending, or from A to C, inclusive of the extremes; of which the first is a third major, composed of two full tones, and its ratio as 4 to 5; the second, a third minor, consisting of a tone and a semitone major, and its ratio as 5 to 6. The fourth has by some been reckoned an imperfect, but more justly, by others, a perfect chord. It consists of three diatonic degrees, but takes its name from the four different sounds of which it is formed; or, in other words, the number by which it is denominated includes the extremes. It is composed of a tone major, a tone minor, and a semitone major, as from C to F ascending; its ratio as 3 to 4. The fifth, next to the octave, is perhaps the most perfect interval, as least susceptible of alteration. The number whence it assumes its name likewise includes its extremes. It consists of two tones major, one minor, and a semitone major, as from A to E ascending; its ratio is as 2 to 3. The sixth is not found among the natural order of consonances, but only admitted by combination. It is not here necessary to mention its various distinctions and uses, as we only give an account of intervals in general. The sixth major consists of four tones and a semitone major, as from G to E ascending;

its ratio is as 3 to 5. The sixth minor contains three tones and two semitones major, as from E to C ascending; its ratio is as 5 to 8. The seventh, as a reduplication of the second, is a dissonance. When major, it consists diatonically of five tones, three major, and two minor; and a major semitone, as from C to B ascending; its ratio is as 8 to 15. When minor, it consists of four tones, three major and one minor, and two major semitones, as from E to D ascending; its ratio is as 5 to 9. The octave is the most perfect of all chords, and in many cases hardly to be distinguished by the ear from a unison; that is to say, from that coincidence of sound produced by two musical strings, whose matter, lengths, diameters, and tensions are the same. As the vibrations of two strings in unison, during any given time, are precisely coincident; so whilst the lowest extreme of the octave vibrates once, the highest vibrates twice; and consequently its ratio is as 1 to 2, as from c to C ascending. It consists of six full tones and two semitones major. Its name is derived from the Latin octo, eight; because that number likewise includes its extremes. It may likewise be divided into twelve semitones. It contains the whole diatonic scale; and every series above or below consists only of the same returning sounds. From whence the natures, distances, and powers, of every interval greater than the octave, as the ninth, the tenth, the eleventh, the twelfth, the thirteenth, the fourteenth, the fifteenth, the triple octave, &c., may easily be computed. The celebrated M. Rousseau has the following judicious observations on this subject:—“We divide,” says he, “as did the ancients, intervals into consonant and dissonant. The consonances are perfect or imperfect (See CHORD, and CONSONANCE); dissonances are either such by nature or become such by accident. There are only two intervals naturally dissonant, viz. the second and seventh, including their octaves or replications; nay, still these two may be reduced to one alone, as the seventh is properly no more than a replication of the second; for B, the seventh above the lowest C, where we have generally begun the scale, is really an octave above B, the note immediately below that C: and consequently the interval between these lower sounds is no more than that of a second major, to which all dissonances may therefore be ultimately reduced, whether considered as major or minor; but even all the consonances may become dissonant by accident. (See DISCORD.) Besides, every interval is either simple or reduplicated. Simple intervals are such as the limits of a single octave comprehend. Every interval which surpasses this extent is reduplicated; that is to say, compounded of one or more octaves, and of the simple interval whose replication it is. Simple intervals are likewise divided into direct and inverted. Take any simple interval whatever for a direct one; the quantity which, added to itself, is required to complete the octave, will be found an inverted interval; and the same observation holds reciprocally true of such as are inverted. There are only six kinds of simple intervals; of which three contain such quantities, as, added to the other three, are required to

complete the octave; and of consequence likewise the one must be inversions of the other. If you take at first the smallest intervals, you will have, in the order of direct intervals, the second, the third, and fourth; for inverted the seventh, the sixth, and fifth. Suppose these to be direct, the others will be inverted; every thing here is reciprocal. To find the name of any interval whatever, it is only necessary to add the denomination of unity to the degree which it contains. Thus the interval of one degree shall give a second; of two, a third; of three, a fourth; of seven, an octave; of nine a tenth; &c. But this is not sufficient to determine an interval with accuracy; for under the same name it may be either major or minor, true or false, diminished or redundant. The consonances which are imperfect, and the two natural dissonances, may be major or minor; which, without changing their degree, occasions in the interval the difference of a semitone; so that if, from a minor interval, we still deduce a semitone, it becomes an interval diminished; if, by a semitone, we increase a major interval, it becomes an interval redundant. The perfect consonances are by their nature invariable. When their intervals are such as they ought to be, we call them just, true: and, if we dilate or contract this interval by a semitone, the consonance is termed false, and becomes a dissonance; redundant, if the semitone be added; diminished, if it be abstracted. We improperly give the name of a false fifth to the fifth diminished; this is taking the genus for the species; the fifth redundant is every jot as false as the diminished, it is even more so in every respect.' In Rousseau's Musical Dictionary (plate C, fig. 2) may be seen a table of all the simple intervals practicable in music, with their names, their degrees, their values, and their ratios. Having ascertained the distinction between major and minor intervals, it is only necessary to add, that these may be natural or artificial. Of the natural we have already given some account, by ascertaining the distances and ratios of such as have been mentioned. Of the artificial, we may observe, that they are such as change their position from what it naturally is in the diatonic scale, to what the conveniency of composition or transposition requires it to be. A note thus artificially heightened by a semitone, together with the character which expresses that elevation, is called a sharp; on the contrary, a note artificially depressed by a semitone, together with the character by which that depression is signified, is called a flat. The character which restores a note thus depressed or raised to its primary state, is called a natural. Major or minor intervals, as they prevail, characterise the major or minor mode. See MODE.

INTERVENE', v. n. & n. s. { Latin, *inter*

INTERVEN'IENT, adj. } and *venio*. To

INTERVEN'TION, n. s. } come between things or persons; to cross unexpectedly: intervention, agency between persons, or between antecedents and consequents; interposition.

There be *intervenient* in the rise of eight, in tones, two bemolls or half-notes. *Bacm.*

While so near each other thus all day
Our task we chuse, what wonder, if so near,
Looks *intervene*, and smiles? *Milton.*
Sound is shut out by the *intervention* of that lax
membrane, and not suffered to pass into the inward
ear. *Holder.*

God will judge the world in righteousness by the
intervention of the man Christ Jesus, who is the
Saviour, as well as the judge of the world.

Atterbury.

But Providence himself will *intervene*,
To throw his dark displeasure o'er the scene.
Couper. Table Talk.

Even sad vicissitude amused his soul:
And if a sigh would sometimes *intervene*,
And down his cheek a tear of pity roll,
A sigh, a tear, so sweet, he wished not to control.
Beautie. Minstrel.

The swift Rhone cleaves his between
Heights which appear as lovers who have parted
In hate, whose mingling depths so *intervene*
That they can meet no more though broken-hearted.

Byron. Childe Harold.

INTERVERT, v. a. Lat. *intervertu*. To turn to another course.

The duke *interverted* the bargain, and gave the
poor widow of Erpinus for the books five hundred
pounds. *Wotton.*

INTERVIEW, n. s. Fr. *entrevue*. Mutual
sight; sight of each other. It is commonly used
for a formal, appointed, or important meeting or
conference.

His fears were, that the *interview* betwixt
England and France might, through their amity,
Breed him some prejudice.

Shakspeare. Henry VIII.

Such happy *interview*, and fair event
Of love, and youth not lost, songs, garlands, flowers,
And charming symphonies, attached the heart
Of Adam. *Milton's Paradise Lost.*

And he and I
Must purchase by renewal of the racking
The *interview* of husband and of wife,
The holiest tie beneath the heavens.

Byron. Tragedy. The Two Foscari.

INTERVOLVE', v. a. Lat. *intervolvo*. To involve one within another.

Mystical dance! which yonder starry sphere
Of planets, and of fixed, in all her wheels
Resembles nearest; mazes intricate,
Eccentric, *intervolved*, yet regular,
Then most, when most, irregular they seem.

Milton.

INTERWEAVE', v. a. Pret. *interwove*, part.
pass. *interwoven*, *interwove*, or *interweaved*.
Inter and weave. To mix one with another in a
regular texture; to intermingle.

Then laid him down
Under the hospitable covert nigh
Of trees thick *interwoven*. *Milton.*

At last
Words *interwove* with sighs found out their way.
Id.

I sat me down to watch upon a bank
With ivy canopied and *interwoven*.

Milton's Comus.

The proud theatres disclose the scene,
Which *interwoven* Britons seem to raise,
And show the triumph which their shame displays.

Dryden.

He so *interweaves* truth with probable fiction, that
he puts a pleasing fallacy upon us. *Id.*

It appeared a vast ocean planted with islands, that
were covered with fruits and flowers, and *interwoven*

with a thousand little shining seas that ran among them.

Addison.

Are we not one? are we not joined by heaven?
Each interwoven with the other's fate?

Rowe.

The Supreme Infinite could not make intelligent creatures, without implanting in their natures a most ardent desire, *interwoven* in the substance of their spiritual natures, of being re-united with himself.

Cheyne's *Philosophical Principles*.

I do not altogether disapprove the *interweaving* texts of scripture through the style of your sermon.

Swift.

First, then, with regard to criticism; to select a few examples from a multitude of others, are we not entertained in the works of Longinus, and the Gentleman's Magazine, with delectable dissertations on the weaving of plots and the *interweaving* of episodes?

Canning.

INTERWISIV', *v. a.* Inter and wish. To wish mutually to each other.

The venom of all stepdames, gamester's gall,
What tyrants and their subjects *interuish*,
All ill fall on that man.

Donne.

INTESTABLE, *adj.* } Fr. *intestat*; Lat. *intestabilis*, *intestatus*.

INTESTATE, *adj.* } Disqualified to make a will: intestate, dying without a will.

Why should calamity be full of words?

—Windy attorneys to their client woes,
Airy succeeds to *intestate* joys.

Poor breathing orators of miseries. Shakspeare.

Present punishment pursues his maw,
When surfeited and swelled, the peacock raw,
He bears into the bath, whence want of breath,
Repletions, apoplex, *intestate* death.

Dryden.

A person excommunicated is rendered infamous and *intestable* both actively and passively. Ayliffe.

Dying *intestate*, Juan was sole heir
To a chancery suit, and messuages, and lands.
Which, with a long minority and care,
Promised to turn out well in proper hands.

Byron.

INTESTINAL, *adj.* } Fr. *intestin*; Lat. *intestinus*. Belonging to the guts; internal; contained in the body: domestic, not foreign. I know not, says Dr. Johnson, whether the word be properly used in the following example of Shakspeare: perhaps for mortal and intestine should be read mortal internece: intestine, the bowel; most commonly used in the plural only.

Since the mortal and *intestine* jars

'Twixt thy seditious countrymen and us,
It hath in solemn synods been decreed,
T' admit no traffick to our adverse towns.

Shakspeare.

At last they climb up to the castle's height;
From which they viewed the deeds of every knight
And marked the doubtful end of this *intestine* fight.

Fletcher's *Purple Island*.

Of these inward and *intestine* enemies to prayer there are our past sins to wound us, our present cares to distract us, our distempered passions to disorder us, and a whole swarm of loose and floating imaginations to molest us.

Dupper.

Intestine stone, and ulcer, cholick pangs
And moon-struck madness. Milton's *Paradise Lost*.

But God, or Nature, while they thus contend,

To these *intestine* discords put an end.

Dryden.

The *intestines* or guts may be inflamed by an acrid substance taken inwardly. Arbuthnot on *Diet*.

Intestine war no more our passions wage,

Even giddy factions bear away their rage.

Pope.

Instead of harmony, 'tis jar,

And tumult, and *intestine* war.

Couper.

INTESTINES. See ANATOMY.

INTH'RAL', *v. a.* } See ENTHRALL.

INTH'RAL'MENT, *n. s.* } See ENTHRALMENT.

What though I be *enthralled*, he seems a knight
And will not any way dishonour me. Shakspeare.
The Turk has sought to extinguish the ancient
memory of those people which he has subjected and
enthralled.

Raleigh.

These suburbs many call the Island's face;
Whose charming beauty and bewitching grace,
Oft times the prince himself *enthalls* in fetters base

Fletcher's *Purple Island*.

Moses and Aaron, sent from God to claim
His people from *enthalment*, they return
With glory and spoil back to their promised land.

Milton.

INTHR'ONE, *v. a.* In and throne. To raise to royalty; to seat on a throne: com
monly enthrone.

One chief, in gracious dignity *enthroned*,
Shines o'er the rest. Thomson's *Seasons*. Summer.

INTIMACY, *n. s.* Fr. *intimer*;

INTIMATE, *adj., n. s., & v. a.* } Span. *intimado*;

INTIMATELY, *adv.* } Lat. *intimus*, *in-*

INTIMATION, *n. s.* } *timare*. The lead-

INTIME, *adj.* } ing idea is inner-

most; and it is applied to friendship, as near and familiar: intimate, to hint; to point out indirectly: intimately, closely; nearly; inseparably: intimation, a hint: intime, inward; an old obsolete word.

So both conspiring, gan to *intimate*.
Each others grieve with zeale affectionate,
And 'twixt them twaine with equal care to cost
How to save whole her hazarded estate.

Spenser. *Faerie Queene*.

As to the composition or dissolution of mixed bodies, which is the chief work of elements, and requires an *intime* application of the agents, water hath the principality and excess over earth.

Digby on *Bodies*.

They knew not
That what I mentioned was of God, I knew
From *intimate* impulse.

Milton's *Agonistes*.

United by this sympathetick bond,
You grow familiar, *intimate*, and fond. Roscommon.

Alexander Van Suchten tells us, that, by a way he *intimates*, may be made a mercury of copper, not of the silver colour of other mercuries, but green.

Boyle.

Fear being so *intimate* to our natures, it is the strongest bond of laws.

Tillotson.

The names of simple ideas and substances, with the abstract ideas in the mind, *intimate* some real existence, from which was derived their original pattern.

Locke.

Let him strictly observe the first stirrings and *intimations*; the first hints and whispers of good and evil that pass in his heart.

South.

Moses was with him in the retirements of the Mount, received there his private instructions when the multitude were thundered away from any approach, he was honoured with an *intimate* and immediate admission.

Id.

Quality, as it regards the mind, has its rise from knowledge and virtue, and is that which is more essential to us, and more *intimately* united with us.

Addison's *Spectator*.

It is in our power to confine our friendships and *intimacies* to men of virtue.

Rogers.

I crown the king of *intimate* delights,
Fire-side enjoyments, home-born happiness.

Couper.

But whence'er
He hears the jarring of a distant door,
Or ought that intimates a coming step.

Byron. Tragedy. Marino Faliero.

INTIM'IDATÈ, v. a. Fr. *intimider*; Latin, *in* and *timidus*. To make fearful; to dastardise; to make cowardly.

At that tribunal stands the writing tribe,
Which nothing can *intimidate* or bribe;
Time is the judge. *Young.*
Now guilt, once harboured in the conscious breast,
Intimidates the brave, degrades the great. *Irene.*

INTIRE', adj. { Fr. *entier*; Lat. *integer*.

INTIRE'NESS, n. s. { Whole; undiminished.

See ENTIRE.

So shall all times find me the same;
You this *intireness* better may fulfil,
Who have the pattern with you still.

Donne.

INTO, prep. In and to.

Noting entrance with regard to place; opposed to *out of*:

Upon a day befell that he for his disports
Went *into* the feldes to play.

Chaucer. Tale of Melibeus.

Water introduces *into* vegetables the matter it bears along with it. *Woodward's Natural History.*

Noting entrance of one thing into another.

If iron will acquire by mere continuance an habitual inclination to the site it held, how much more may education, being a constant plight and injurement, induce by custom good habits *into* a reasonable creature! *Wotton.*

Noting penetration beyond the outside, or some action which reaches beyond the superficies or open part.

To look *into* letters already opened or dropt is held an ungenerous act. *Pope.*

Noting inclusion real or figurative.

They have denominated some herbs solar and some lunar, and such like toys put *into* great words. *Bacon.*

Noting a new state to which any thing is brought by the agency of a cause.

Compound bodies may be resolved *into* other substances than such as they are divided *into* by the fire. *Boyle.*

It concerns every man that would not trifle away his soul, and fool himself *into* irrecoverable misery, with the greatest seriousness to enquire *into* these matters. *Tillotson.*

A man must sin himself *into* a love of other men's sins; for a bare notion of this black art will not carry him so far. *South.*

He is not a frail being, that he should be tired *into* compliance by the force of assiduous application. *Smalridge.*

That prodigy, Miss Anoramira Smith (Who at sixteen translated 'Hercules Fureus' *Into* as furious English) with her best look Set down his sayings in her common-place book. *Byron.*

INTOL'ERABLÈ, adj. Lat. *intolerabilis*, in INTOL'ERABLENESS, n. s. { and *tolerio*; Fr. *intolerable*.

INTOL'ERABLY, adv. { *lerant*. Insufferable;

INTOL'ERANT, adj. { not to be endured; not to be borne: having any quality in a degree too powerful to be endured: intolerant, not able to endure; these words are generally used to express extreme suffering; a dislike.

This wo and anguish is *intollerable*

If I bide here, life can I not sustain.

Chaucer. Lament of Mary Magdalene.

If we bring into one day's thoughts the evil of many, certain and uncertain, what will be and what will never be, our load will be as *intolerable* as it is unreasonable.

Taylor.

Who would not rather get him gone

Beyond the *intolerablist* zone,

Or steer his passage through those seas

That burn in flames, or those that freeze,

Than see one nation go to school,

And learn of another like a fool? *Butler.*

Intolerable, vanity! your sex

Was never in the right! you're always false

Or silly! *Otway's Orphan.*

Too great moisture affects human bodies with one class of diseases, and too great dryness with another: the powers of human bodies being limited and *intolerant* of excesses. *Arbuthnot.*

Religion harsh, *intolerant*, austere,

Parent of manners like herself severe.

Couper. Table Talk.

INTOMB', v. a. In and tomb. To enclose in a funeral monument; to bury.

What commandment had the Jews for the ceremony of odours used about the bodies of the dead, after which custom notwithstanding our Lord was contented that his own most precious blood should be *intombed*? *Hooker.*

Is't night's predominance or the day's shame,
That darkness does the face of earth *intomb*? *Shakspeare.*

INTONATE, v. a. Lat. *intono*. To thunder

INTONATION, n. s. Fr. *intonation*, from intone. The act of thundering.

INTONATION, in music, is the action of sounding the notes in the scale with the voice, or any other given order of musical tones. Intonation may be either true or false, either too high or too low, either too sharp or too flat; and then intonation, attended with an epithet, must be understood concerning the manner of performing the notes. In executing an air, to form the sounds, and preserve the intervals as they are marked with justness and accuracy, is no inconsiderable difficulty, and scarcely practicable, but by the assistance of the common idea, to which, as to their ultimate test, these sounds and intervals must be referred: these common ideas are those of the key, and the mode in which the performer is engaged. We feel more difficulty in our intonation of such intervals as are greater or less than those of the diatonic order; because, in the first case, the vocal organs are modified by gradations too large; or too complex in the second.

INTONE', v. n. Fr. *intonner*, from Lat. *intono*, or rather from tone. To make a slow protracted noise.

So swells each wind-pipe; ass *intones* to ass Harmonic twang. *Pope's Dunciad.*

INTORT', v. a. • Lat. *intortus*. To twist; to wreath; to wring.

The brain is a congeries of glands, that separate the finer parts of the blood, called animal spirits: and a gland is nothing but a canal variously *intorted* and wound up together. *Arbuthnot.*

With reverent hand the king presents the gold;
Which round the *intorted* horns the gilder rolled. *Pope.*

INTOX'ICATE, *v. a.* } Ital. *tossicare*; Lat.

INTOXICA'TION, *n. s.* } *in* and *toxicum*. To
inebriate or make drunk: a state of drunkenness.

That king, being in amity with him, did so burn
in hatred towards him, as to drink of the lees and
dregs of Perkin's *intoxication*, who was every where
else detected.
Bacon.

The more a man drinketh of the world, the more
it *intoxicateth*; and age doth profit rather in the
powers of understanding, than in the virtues of the
will and affections.
Id.

As with new wine *intoxicated* both,
They swim in mirth, and fancy that they feel
Divinity within them breeding wings,
Wherewith to scorn the earth.
Milton.

Others, after having done fine things, yet spoil
them by endeavouring to make them better; and are
so *intoxicated* with an earnest desire of being above
all others, that they suffer themselves to be deceived.
Dryden's Dysfresnoy.

King was a name too proud for man to wear
With modesty and meekness, and the crown,
So dazzling in their eyes who set it on,
Was sure to 'intoxicate the brows it bound.
Conger's Task.

At which my soul aches to think,
Intoxicated with Eternity! *Byron. Cain.*

INTOXICATION, or Drunkenness. The ancient
Lacedemonians used to make their slaves drunk
to give their children an aversion and horror for
the vice. The Indians hold drunkenness a
species of madness; and, in their language, the
same term that signifies drunkard, signifies also
a mad person.

Drunkenness, by the English law, is con-
sidered as an aggravation rather than an excuse
for any criminal behaviour. 'A drunkard,' says
Sir Edward Coke, 'who is voluntarius daemon,
has no privilege thereby; but whatsoever he
doth, his drunkenness doth aggravate it: nam
omne crimen ebrietatis et incendi et detergit.' In
Greece, a law of Pittacus enacted, 'that he who
committed a crime when drunk should receive
a double punishment; one for the crime itself,
and the other for the ebriety which prompted
him to commit it.' The Roman law indeed made
great allowances for this vice; per vinum delapsis
capitalis pena remittitur. But the law of England,
considering how easy it is to counterfeit this ex-
cuse, and how weak an excuse it is, though real,
will not suffer any man thus to privilege one
crime by another. For the offence of drunken-
ness a man may be punished in the ecclesiastical
court, as well as by justices of peace by statute.
And by 4 Jac. I. c. 5, and 21 Jac. I. c. 7, if
any person shall be convicted of drunkenness by
a justice, oath of one witness, &c., he shall forfeit
5s. for the first offence, to be levied by dis-
tress and sale of his goods; and, for want of a
distress, shall sit in the stocks six hours: and,
for the second offence, he is to be bound with
two sureties in £10 each, to be of good behaviour,
or to be committed. And he who is guilty of
any crime, through his own voluntary drunken-
ness, shall be punished for it as if he had been
sober. It has been held that drunkenness is a
sufficient cause to remove a magistrate: and the
prosecution for this offence, by the statute of 4
Jac. I. c. 5, was to be, and still may be, before
justices of peace in their sessions by way of in-
dictment, &c. Equity will not relieve against a

bond, &c., given by a man when drunk, unless
the drunkenness is occasioned through the
management or contrivance of him to whom
the bond is given.

INTRACT'ABLE, *adj.* } Fr. *intractable*;
INTRACT'ABleness, *n. s.* } Latin, *intractabilis*.

INTRACT'ABLY, *adv.* } Ungovernable; fu-
rious; not to be led or restrained: obstinacy;
perverseness.

To love them who love us is so natural a passion,
that even the most *intractable* tempers obey its force.
Rogers.

By what means serpents, and other noxious and
more *intractable* kinds, as well as the more innocent
and useful, got together.
Woodward.

INTRANQUILL'LITY, *n. s.* In and tranquill-
ity. Unquietness; want of rest.

Jactations were used for amusement, and allay in
constant pains, and to relieve that *intranquillity*
which makes men impatient of lying in their beds.
Temple.

INTRAN'SITIVE, *adj.* Lat. *intransitivus*. In
grammar. A verb intransitive is that which sig-
nifies an action not conceived as having an effect
upon any object; as, *curro*, I run.—Clarke's
Latin Grammar.

INTRANSMUTABLE, *adj.* In and transmu-
table. Unchangeable to any other substance.

Some of the most experienced chemists do affirm
quicksilver to be *intransmutable*, and therefore call it
liquor aternus.
Ray on the Creation.

INTREAS'URE, *v. a.* In and treasure. To
lay up as in a treasury.

There is a history in all men's lives
Figuring the nature of the times deceased;
The which observed, a man may prophesy,
With a near aim, of the main chance of things
As yet not come to life, which in their seeds
And weak beginnings he *intreasured*. *Shakspeare.*

INTRENCH', *n. a. & v. n.* } Fr. *intrencher*.
INTRENCH'ANT, *adj.* } To invade or en-
INTRENCH'MENT, *n. s.* } croach; to break

with hollows; to fortify with a trench, which is
called *intrenchment*. See *ENTRENCHMENT*. This
word (*intrenchant*), says Dr. Johnson, 'which is,
I believe, found only in Shakspeare, is thus
explained: the *intrenchant* air means the air
which suddenly encroaches and closes upon the
space left by any body which had passed through
it.—Hammer. I believe Shakspeare intended
rather to express the idea of indivisibility or in-
vulnerableness, and derived *intrenchant* from in-
privative, and *trencher* to cut; *intrenchant* is in-
deed, properly, not cutting, rather than not to be
cut; but this is not the only instance in which
Shakspeare confounds words of active and pas-
sive signification.' Not to be divided; not to be
wounded; indivisible.

As easy mayest thou the *intrenchant* air
With thy keen sword impress, as make me bleed.
Shakspeare

Darkened so, yet shone
Above them all the archangel: but his face
Deep seeds of thunder had *intrenched*, and care
Sat on his faded cheek, but under brows
Of dauntless courage and considerate pride
Boasting revenge.
Milton.

Little I desire my sceptre should *intrench* on God's
sovereignty, which is the only king of men's con-
sciences.
King Charles.

INTRENCHMENT, in the military art, is any work that fortifies a post against an enemy. It is generally used for a ditch or trench with a parapet. Intrenchments are sometimes made of fascines with earth thrown over them, of gabions, hogsheads, or bags filled with earth, to cover the men from the enemy's fire.

INTREP'DID, *adj.* Fr. *intrepide*; Lat. *in* and *trepidus*. Fearless; **INTREP'IDITY**, *n. s.* brave; daring: courage; boldness.

I could not sufficiently wonder at the *intrepidity* of these diminutive mortals, who durst venture to walk upon my body, without trembling. *Gulliver.*

He takes the globe for the scene; he launches forward *intrepidly*, like one to whom no place is new. *Pope.*

Argyle

Calm and *intrepid* in the very throat
Of sulphurous war, on Tenier's dreadful field. *Thomson.*

INTRICATE, *adj. & v. a.* Fr. *intrigue*; **INTRICACY**, *n. s.* Lat. *intricatus*.

INTRICATELY, *adv.* That which **INTRICATENESS**, *n. s.* hinders or entangles, perplexes, or obscures: intricacy is a complication of facts or notions which obscure a subject: intricately, in an involved or confused manner. The meaning of these words is from *tricæ*, hairs or feathers, which hinder chickens from running.

Much of that we are to speak may seem to a number perhaps tedious, perhaps obscure, dark and *intricate*. *Hooker.*

He found such *intricateness*, that he could see no way to lead him out of the maze. *Sidney.*

That variety of factions into which we are so intricately engaged, gave occasion to this discourse. *Swift.*

The part of Ulysses in Homer's *Odyssey* is much admired by Aristotle, as perplexing that fable with very agreeable plots and *intricacies*, by the many adventures in his voyage, and the subtlety of his behaviour. *Addison.*

His style was fit to convey the most intricate business to the understanding with the utmost clearness. *Id.*

The ways of Heaven are dark and *intricate*,
Puzzled in mazes, and perplexed with errors. *Addison's Cato.*

Contrivance *intricate*, expressed with ease,
Where unassisted sight no beauty sees. *Couper. Retirement.*

INTRIGUE', *n. s. & v. n.* Fr. *intrigue*. A

INTRIG'UER, *n. s.* plot; a transaction.

INTRIG'UINGLY, *adv.* of love, in which many are engaged; intricacy; the complication, or artful involution of a tale or poem. Intriguer, one who busies himself in private transactions, or pursues women.

I desire that *intriguers* will not make a pimp of my lion, and convey their thoughts to one another. *Addison.*

As causes are the beginning of the action, the opposite designs against that of the hero are the middle of it, and form that difficulty or *intrigue* which makes up the greatest part of the poem. *Pope.*

The hero of a comedy is represented victorious in all his *intrigues*. *Swift.*

Now love is dwindled to *intrigue*,

And marriage grown a money league. *Id.*

Are we not continually informed that the author unravels the web of his *intrigue*, or breaks the thread of his narration? *Canning.*

INTRIN'SICAL, *adj.* Lat. *intrinsecus*. **INTRIN'SICALLY**, *adv.* Internal; solid; substantial; intimate; **INTRIN'SIC**, *adj.* substantial; intimate; **INTRIN'SECATE**, *adj.* not depending on accident or collateral circumstances, but fixed in the nature of the thing. Intrinsicate, perplexed: not in use.

Such smiling rogues as these,
Like rats, oft bite the holy cords in twain,
Too *intrinscate* to unloose.

Shakespeare. King Lear.

Intrinsic goodness consists in accordance, and sin in contrariety to the secret will of God, as well as to his revealed. *Hammond's Fundamentals.*

The difference between worth and merit, strictly taken; that is, a man's *intrinsic*: this, his current value. *Grew.*

A lye is a thing absolutely and *intrinsically* evil. *South.*

Every one of his pieces is an ingot of gold, *intrinsically* and solidly valuable. *Prior.*

His fame, like gold, the more 'tis tried,
The more shall its *intrinsic* worth proclaim. *Id.*

He falls into *intrinsical* society with Sir John Graham, who dissuaded him from inarriage. *Wotton.*

The near and *intrinsical*, and convincing argument of the being of God, is from human nature itself. *Bentley.*

If once bereaved of motion, matter cannot of itself acquire it again; nor till it be thrust by some other body from without, or *intrinsically* moved by an immaterial self-active substance that can pervade it. *Id.*

INTRODUCE', *v. a.* Lat. *introduco*, *int-*

INTRODUC'R, *n. s.* *introductio*. To conduct.

INTRODUC'TION, *n. s.* or usher into place;

INTRODUC'TIVE, *adj.* to bring into notice;

INTRODUC'TORY, *adj.* to produce; to bring into writing or discourse. Introducer, one who conducts another to a place or person, or brings him into notice: introduction, the act of introducing; the preface to a book; the exordium of a discourse: introductory, introductory, serving as a means to something else.

Thus maketh he his *introduction*
To bringen folk to hir destruction. *Chancer. The Chanones Yemannes Tale.*

The *introduction* of noble inventions seems to hold by far the most excellent place among all human actions. *Bacon.*

This vulgar error whosoever is able to reclaim, he shall *introduce* a new way of cure, preserving by theory as well as practice. *Browne's Vulgar Errors.*

This *introductory* discourse itself is to be but an essay, not a book. *Boyle.*

Mathematicians of advanced speculations may have other ways to *introduce* into their minds ideas of infinity. *Locke.*

The truth of Christ crucified, is the Christian's philosophy, and a good life is the Christian's logic that great instrumental *introductive* art, that must guide the mind into the former. *South.*

It is commonly charged upon the army; that the beastly vice of drinking to excess hath been lately, from their example, restored among us; but whoever the *introducers* were, they have succeeded to a miracle. *Swift.*

Here the twelfth Canto of our *introduction* Ends. When the body of the book's begun,
You'll find it of a different construction.

From what some people say 'twill be when done,
The plan's at present simply in concoction.

Byron. Don Juan.

INTROGRESSION, *n. s.* Lat. *introrsus*.
Entrance; the act of entering.

INTROMISSION, *n. s.* Lat. *intrumissio*.
The act of sending in.

If sight be caused by *intrumission*, or receiving in
the form of that which is seen, contrary species or
forms shall be received confusedly together, which
Aristotle shews to be absurd. *Peecham.*

All the reason that I could ever hear alledged by
the chief factors for a general *intrumission* of all
sects and persuasions into our communion, is, that
those who separate from us are stiff and obstinate,
and will not submit to the rules of our church, and
that therefore they should be taken away. *South.*

In the Scotch law. The act of intermeddling with another's effects: as, he shall be
brought to an account for his intrumissions with
such an estate.

INTROMIT', *v. a.* Lat. *intromitto*. To send
in; to let in; to admit; to allow to enter; to be
the medium by which any thing enters.

Glass in the window *intrmits* light without cold
to those in the room. *Holder.*

Tinged bodies and liquors reflect some sorts of
rays, and *intrmit* or transmit other sorts. *Newton.*

INTROSPECT', *v. a.* Lat. *introspectus*. To
take a view of the inside.

INTROSPECTION, *n. s.* From introspect.
A view of the inside.

The actings of the mind or imagination itself, by
way of reflection or *introspection* of themselves, are
discernible by man. *Hale.*

INTROVENIENT, *adj.* Lat. *intro* and *venio*.
Entering; coming in.

Scarce any condition which is not exhausted and
obscured, from the commixture of *introvenient* na-
tions, either by commerce or conquest. *Browne.*

INTRUDE', *v. n. & v. a.* Fr. *intrusion*;
INTRU'DER, *n. s.* Lat. *intrudo*. To

INTRUSION, *n. s.* come in as an un-
welcome guest without invitation or permission;
to encroach; to force in or into: intruder,
an unwelcome visitor; an impertinent, officious
fellow: intrusion, encroachment on any person
or in any place; uncalled undertaking.

Let no man beguile you of your reward, in a
voluntary humility, and worshipping of angels, *in-
truding* into those things which he hath not seen by
his fleshly mind. *Col. ii. 18.*

I think myself in better plight for a lender than
you are, the which hath something emboldened me
to this unseasoned *intrusion*: for they say, if money
go before, all ways do lie open. *Shakespeare.*

Unnannerly *intruder* as thou art! *Id.*
Thy years want wit, thy wit wants edge

And manners to *intrude* where I am graced. *Id.*

They were but *intruders* upon the possession,
during the minority of the heir: they knew those
lands were the rightful inheritance of that young
lady. *Davies on Ireland.*

Frogs, lice, and flies, must all this palace fill
With loathed *intrusion*. *Milton's Paradise Lost.*

Many excellent strains have been jostled off by
the *intrusions* of poetical fictions. *Browne.*

Will you, a bold *intruder*, never learn
To know your basket, and your bread discern? *Dryden.*

The separation of the parts of one body, upon
the *intrusion* of another, and the change from rest to
motion upon impulse, and the like, seem to have
some connection. *Locke,*

The Jewish religion was yet in possession: and
therefore that this might so enter, as not to *intrude*,
it was to bring its warrant from the same hand of
omnipotence. *South.*

Forgive me fair one, if oficious friendship
Intrudes on your repose, and comes thus late

To greet you with the tidings of success. *Rowe.*
How's this, my son? Why this *intrusion*?

Were not my orders that I should be private? *Addison's Cato.*

It will be said, I handle an art no way suitable
either to my employment or fortune, and so stand
charged with *intrusion* and impertinency. *Wotton.*

Let me shake off the *intrusive* cares of day,
And lay the meddly senses all aside. *Thomson.*

But if perchance on some dull drizzling day,
A thought *intrude* that says or scours to say,

Couper. Hope.

There is a pleasure in the pathless woods,
There is a rapture on the lonely shore,
There is society where none *intrude*,
By the deep sea, and music in its roar.

Byron. Childe Harold.

INTRUST', *v. a.* In and trust. To treat
with confidence; to charge with any secret com-
mission, or thing of value; as, we intrust another
with something; or we intrust something to
another.

His majesty had a solicitous care for the payment
of his debts; though in such a manner, that none
of the duke's officers were *intrusted* with the know-
ledge of it. *Clarendon.*

Receive my counsel, and securely move;

Intrust thy fortune to the powers above. *Dryden.*

Are not the lives of those, who draw the sword
In Rome's defence, *intrusted* to our care? *Addison.*

Is duty a mere sport, or an employ?

Life an *intrusted* talent, er a toy? *Couper. Retirement.*

INTUITION, *n. s.* Fr. *intuition*; Lat. *in-*

INTU'ITIV', adj. *tucor, intuitus*; Ital. *in-*

INTU'ITIVELY, adv. *tuitia*. The act of seeing
into; the insight into any thing; obtaining
knowledge not by deduction of reason, but
instantaneously from the ideas which are its
object: intuitive, seeing, as opposed to be-
lieving; having the power of discovering truth
without reasoning: intuitively, in a manner im-
plying instant perception of the subject proposed.

The rule of ghostly or immaterial natures, as
spirits and angels, is their *intuitive* intellectual judgment,
concerning the amiable beauty and high good-
ness of that object, which, with unspeakable joy and
delight, doth set them on work. *Hooker.*

Faith, beginning here with a weak apprehension
of things not seen, endeth with the *intuitive* vision of
God in the world to come. *Id.*

The soul receives

Discursive or *intuitive*. *Milton.*

All knowledge of causes is deductive; for we know
none by simple *intuition*, but through the mediation
of their effects; for the casualty itself is insensible.

Glanville.

He that single virtues did survey,

By *intuition* in his own large breast. *Dryden.*

Immediate perception of the agreement and dis-
agreement of two ideas is when, by comparing them
together in our minds, we see their agreement or dis-
agreement; this therefore is called *intuitive* knowledge,

Locke.

Lofty flights of thought, and almost *intuitive* perception of abstruse notions, or exalted discoveries of mathematical theorems, we sometimes see existent in one person.
Bentley.

INTUMESCENCE, *n. s.* Fr. *intumescence* ;
INTUMES'CENCY. Lat. *intumesco*.
Swell; tumor; the act or state of swelling.

According to the temper of the terrene parts at the bottom, as they are more hardly or easily moved, they variously begin, continue, or end their *intumescencies*. Browne.

This subterranean heat causes a great rarefaction and *intumescence* of the water of the abyss, putting it into very great commotions, and occasions an earthquake. Woodward.

INTURGES'CENCE, *n. s.* Lat. *in* and *turgesco*. Swelling; the act or state of swelling.

Not by attenuation of the upper part of the sea, but *inturgescences* caused first* at the bottom, and carrying the upper part of it before them. Browne.

INTUSE, *n. s.* Lat. *intus*. Bruise.

She did search the swelling bruze,
And having searched the *intuse* deep,
She bound it with her scarf. Spenser.

INTWINE', *v. a.* In and twine. To twist, or wreath together.

This opinion, though false, yet *intwined* with a true, that the souls of men do never perish, abated the fear of death in them. Hooker.

To be inserted by being wretched or twisted.
The vest and veil divine,
Which wandering foliage and rich flowers *intwine*. Dryden.

INVADE', *v. a.* Lat. *invado*. To go to, or
INVA'DER, *n. s.* } into; to make hostile en-

INVA'SION, *n. s.* } trace; to attack or assault;

INVA'SIVE, *adj.* to violate by the first act of aggression: invader, one who enters with hostility; an assailant, encroacher, or intruder: invasion, hostile entrance: invasive, opposed to defensive.

We made an *invasion* upon the Cherethites.

1 Sam. xxx.

There shall be sedition among men, and *invading* one another; they shall not regard their kings. 2 Esdras.

The thief

Lay sleeping soundly in the bushes shade,
Whom Coridon him counseled to *invade*
Now all unwares, and take the spoyle away.

Spenser. Faerie Queene.

Should he *invade* any part of their country, he would soon see that nation up in arms. Knolles.

Thou thinkest 'tis much, that this contentious storm

Inva'des us to the skin; so 'tis to thee;
But, where the greater malady is fixed,
The lesser is scarce felt. Shakspeare. King Lear.

The breath of Scotland the Spaniards could not endure; neither durst they, as *invaders*, land in Ireland. Bacon.

That knowledge, like the coal from the altar, serves only to embroil and consume the sacrilegious *invaders*. Decay of Piety.

The substance was formerly comprised in that uncompounded style, but afterwards prudently enlarged for the repelling and preventing heretical *invaders*. Hammond.

Were he lost, the naked empire

Would be a prey exposed to all *invaders*.

Denham's Sophy.

Their piety

In sharp contest of battle found no aid
Against *invaders*. Milton's Paradise Lost.
With dangerous expedition they *invade*
Heaven, whose high walls fear no assault. Id.

When force *invades* the gift of nature, life,
The eldest law of nature bids defend. Dryden.

I must come closer to my purpose, and not make more *invasive* wars abroad, when, like Hannibal, I am called back to the defence of my country. Id.

The nations of the' Ausonian shore
Shall hear the dreadful rumour from afar,
Of armed *invasion*, and embrace the war. Id. Aeneid.

William the Conqueror *invaded* England about the year 1060, which means this; that taking the duration from our Saviour's time 'till now, for one entire length of time, it shews at what distance this *invasion* was from the two extremes. Locke.

Reason finds a secret grief and remorse from every *invasion* that sin makes upon innocence, and that must render the first entrance and admission of sin uneasy. South.

Secure, by William's care, let Britain stand;
Nor dread the bold *invader*'s hand. Prior.

What demonstrates the plague to be endemic to Egypt, is its *invasion* and going off at certain seasons trbathoot

Let other monarchs with *invasive* bands,
Lessen their people, and extend their lands;
By gasping nations hated and obeyed,
Lords of the desarts that their swoids had made. Id.

Esteem and judgment with strong fancy join,
To call the fair *invader* in;

My darling favourite inclination, too,
All, all conspiring with the fee. Granville.

The country about Attica was the most barren of any in Greece, through which means it happened that the natives were never expelled by the fury of *invaders*. Swift.

Knowest thou not yet, when love *invades* the soul
That all her faculties receive her chains. Dr. Johnson's Irene.

It is therefore idle to say that it is not in truth and in fact a foreign *invasion*. Canning's Speeches.

INVAL'ESCENCE, *n. s.* Lat. *invalesco*. Strength; health; force.

INVAL'ID, *adj.* Fr. *invalid*; Lat. *in* and *validus*. Weak; without weight or cogency.

INVAL'IDITY, *n. s.* Invalidate, to deprive of force or efficacy. Invalid, one disabled by sickness or injury. Invalidity, weakness; want of strength, bodily or mental.

But this I urge,
Admitting motion in the heavens, to shew
Involid, that which thee to doubt it moved. Milton.

To *invalidate* such a consequence, some things might be speciously enough alledged. Boyle.

He ordered, that none who could work should be idle, and that none who could not work by age, sickness, or *invalidity*, should want. Temple.

Tell a man, passionately in love, that he is jilted, bring a score of witnesses of the falsehood of his mistress, and it is ten to one but three kind words of her shall *invalidate* all their testimonies. Locke.

What beggar in the *invaildes*,
With lameness broke, with blindness smitten,
Wished ever decently to die? Prior.

INVAL'UABLE, *adj.* In and valuable. Precious above estimation; inestimable.

The faith produced by terror would not be so free an act as it ought, to which are annexed all the glo-
rious and *invaluable* privileges of believing.

Atterbury.

INVARIABLE, *adj.* Lat. *in* and *varius*.
INVARIABLENESS, *n.s.* } Unchangeable; im-
INVARIABLY, *adv.* } mutable: constantly.

Being not able to design times by days, months, or years, they thought best to determine these alterations by some known and *invariable* signs, and such did they conceive the rising and setting of the fix stars. *Browne.*

The rule of good and evil would not appear uniform and *invariable*, but different, according to men's different complexions and inclinations. *Atterbury.*

He who steers his course *invariably* by this rule, takes the surest way to make all men praise him. *Id.*

INVECTIVE, *n.s. & adj.* Lat. *invectio*.

INVECTIVELY, *adv.* } To inveigh is to
Inveigh, *v.n.* } utter censure or

Inveigh'er, *n.s.* } reproach, used with *against* and *at*. Invective, a censure in speech or writing. Invectively, satirically; abusively. Inveigher, a railer or scorner.

Thus most *invectively* he pierceth through The body of the country, city, court,

Yea, and of this our life: swearing that we Are mere usurpers, tyrants. *Shakspeare.*

Casting off respect, he fell to bitter *invectives* the French king. *Bac. Henry VII.*

Whilst we condemn others, we may indeed be in the wrong; and then all the *invectives* we make at their supposed errors fall back with a rebounded force upon our own real ones. *Decay of Piety.*

Let him rail on: let his *invective* muse Have four and twenty letters to abuse. *Dryden.*

I cannot blame him for *inveighing* so sharply against the vices of the clergy in his age. *Id.*

One of these *inveighers* against mercury, in seven weeks, could not cure one small herpes in the face. *Wiseman.*

INVEIGLE, *v.a.* } Fr. *aveugler*, *enaveugler*.
INVLIGLER, *n.s.* } —Skinner and Junius. Italian *inrogliare*.—Minshew. To persuade to something bad or hurtful; to wheedle; to allure; to seduce. Inveigler, a seducer to ill.

Being presented to the emperor for his admirable beauty, the prince clapt him up as his *inveigler*. *Sandys.*

Achilles hath *inveigled* his fool from him. *Shakspeare.*

Yet have they many baits and guileful spells, To *inveigle* and invite the' unwary sense Of them that pass unweeting by the way. *Milton.*

Both right able To' *inveigle* and draw in the rabble. *Hudibras.*

The *inveigling* a woman, before she is come to years of discretion, should be as criminal as the seducing of her before she is ten years old. *Spectator.*

INVEGES (Augustin), a celebrated Jesuit and historian, a native of Siacea, in Sicily, was born in 1595. He quitted the Jesuit's society after teaching philosophy and theology, and devoted himself to the composition of history. He died at Palermo in 1677. His works are, *The History of Palermo*, 3 vols. folio; *History of the Terrestrial Paradise*, 4to.; *La Cartagine Siciiana*, 4to.; and the *History of Cascamo*. In the

last work he mentions the Sicilian vespers as deserving the applause of all historians.

INVENT', *v.a.* French *inventer*;

INVENTER, *n.s.* Lat. *invenio, invent-*

INVENTION, *n.s.* *torium*. To come

INVENTIVE, *adj.* } upon; to discover;

INVENTOR, *n.s.* } to produce some-

INVENTORIALLY, *adv.* } thing not made be-

INVENTORY, *n.s. & v.a.* fore; to forge;

INVENTRESS, *n.s.* } feign; to meet with:

the person who thus acts is an inventor, inventor, or inventress. Inventory, a catalogue of goods to place in a catalogue. Inventorially, after the manner of an inventory.

Woe to them that *invent* to themselves instruments of musick. *Amos.*

The well and grounde of the firste *invencion*

To knowe, the ortographic we must derive.

Chaucer. The Remedy of Love.

For my devocion and my hole entent Was gevyn to pleasure, such as I did *invent*

Nowe I repent, therefore my negligence to God, Who hathe me corrected with his dydyn rod.

G. Carendish's Metrical Visions.

How vainly then do ylle wits *invent*.

That beautie is nought else but mixture made Of colours faire, and goodly temp'rament

Of pure complexions that shall quickly fade.

Spenser's Hymnes.

The substance of the service of God, so far forth as it hath in it any thing more than the law of reason doth teach, may not be *invented* of men, but must be received from God himself. *Hawker.*

We hear our bloody cousins, not confessing

Their cruel parricide, filling their hearers

With strange *invention*. *Shakespeare. Macbeth.*

In this upshot, purpose mistook,

Fallen on the *inventors*' heads. *Shakespeare.*

I would *invent* as bitter searching terms,

With full as many signs of deadly hate,

As lean-faced envy in her loathsome cave. *Id.*

I found,

Forsooth, an *inventory*, thus importing,

The several parcels of his plate. *Shakespeare.*

To divide *inventorially*, would dizzy the arithmetic of memory. *Id. Hamlet.*

I will give out divers schedules of my beauty: it shall be *inventoried*, and every particle and utensil labelled. *Shakespeare.*

We have the statue of your Columbus, that discovered the West Indies, also the *inventor* of ships; your Monk, that was the *inventor* of ordnance, and of gunpowder. *Bacon.*

Whoe'er looks,

For themselves dare not go, o'er Cheapside books,

Shall find their wardrobe's *inventory*. *Donne.*

His eyes deep sunken been

With often thoughts, and never slacked intention:

Yet he the fount of speedy apprehension,

Father of wit, the well of arts, and quick *invention*. *Fletcher's Purple Island.*

Studiois they appear

Of arts that polish life; *inventors* rare,

Unmindful of their maker. *Milton's Paradise Lost.*

We may *invent*

With what more forcible we may offend

Our enemies. *Id.*

The garden, a place not fairer in natural ornaments than artificial *inventions*. *Sidney.*

By improving what was writ before,

Invention labours less, but judgment more. *Roscommon*

Here is a strange figure invented, against the plain
sense of the words.

Stillingfleet.

At last divine Cecilia came,
Invention of the vocal frame.

Dryden. Alexander's Feast.

That inventive head

Her fatal image from the temple drew,
The sleeping guardians of the castle slew.

Dryden.

Invention is a kind of muse, which, being possessed of the other advantages common to her sisters, and being warred by the fire of Apollo, is raised higher than the rest.

Id.

As a translator, he was just; as an *inventer*, he was rich.

Guth.

In Persia the daughters of Eve are reckoned in the *inventory* of their goods and chattles; and it is usual, when a man sells a bale of silk, to toss half a dozen women into the bargain.

Addison.

Why are these positions charged upon me as their sole author and *inventor*, and the reader led into a belief, that they were never before maintained by any person of virtue!

Attterbury.

The chief excellence of Virgil is judgment, of Homer is *invention*.

Pope.

Necessity may be the mother of lucrative *invention*, but it is the death of poetical *invention*.

Shestone's Detached Thoughts.

Sure my *invention* must be down at Zero,
And I grown one of many 'wooden spoons'
Of verse (the name with which we Cantabs please
To dub the last of honours in degrees).

Byron. Don Juan.

An *INVENTORY*, in law, is a catalogue made of all a deceased person's goods and chattels, at the time of his death, with their value appraised by indifferent persons, which every executor or administrator is obliged to exhibit to the ordinary at such times as he shall appoint. By 21 Hen. VIII. c. v. executors and administrators are to deliver in upon oath, to the ordinary, indented inventories, one part of which is to remain with the ordinary, and the other part with the executor or administrator; this is required for the benefit of the creditors and legatees, that the executor or administrator may not conceal any part of the personal estate from them. The statute ordains, that the inventory shall be exhibited within three months after the person's decease: yet it may be done afterwards; for the ordinary may dispense with the time, and even with its being ever exhibited, as in cases where the creditors are paid, and the will is executed.

In the British army when any commissioned officer happens to die, or is killed on service, it is directed by the Articles of War, that the major of the regiment, or the officer doing the major's duty in his absence, shall immediately secure all his effects or equipage then in camp or quarters; and shall, before the next regimental court-martial, make an inventory thereof, and forthwith transmit the same to the office of the secretary at war, to the end that the executors of such officer may, after payment of his regimental debts and quarters, and the expenses attending his interment, receive the overplus, if any be, to his or their use.

When any non-commissioned officer or private soldier happens to die, or is killed on service, the then commanding officer of the troop or com-

pany shall, in the presence of two other commissioned officers, take an account of whatever effects he dies possessed of, above his regimental clothing, arms and accoutrements, and transmit the same to the office of the secretary at war. These effects are to be accounted for and paid to the representative of such deceased non-commissioned officer or soldier; and in case any of the officers, so authorised to take care of the effects of deceased officers and soldiers, should, before they have accounted to their representatives for the same, have occasion to leave the regiment by preferment, or otherwise, they are ordered, before they be permitted to quit the same, to deposit in the hands of the commanding officer, or of the agent of the regiment, all the effects of such deceased non-commissioned officers and soldiers, in order that the same may be secured for, and paid to, their respective representatives. See Articles of War, sect. XIX.

INVERARAY, or INVERARY, a royal borough of Scotland, in a parish of the same name, and capital of Argyllshire, pleasantly situated on a small bay formed by the junction of the Ary or Aoreidh with Loch Fyne, where the latter is a mile broad, and sixty fathoms deep. Here is a castle, the principal seat of the dukes of Argyll. It is a modern building of a quadrangular form, with a round tower at each corner; and in the middle rises a square one glazed on every side to give light to the staircase and galleries, which has, from without, rather a heavy appearance. This castle is built of a coarse lapis ollaris, brought from the other side of Loch Fyne, of the same kind with that found in Norway, of which the king of Denmark's palace is built. The principal manufactures are linen, woollen, iron, carpentry, &c. The planting around Inverary is extensive beyond conception, and admirably variegated; every crevice, glen, and mountain, displaying taste. One of the hills rises immediately from the house a great height, in the form of pyramid, and is clothed to the summit with a thick wood of vigorous ornaments, trees. On this summit, duke Archibald built a Gothic tower, or observatory. The ascent by the road seems to be half a mile, and the perpendicular height about 800 feet. Inveray is forty-five miles north-west of Glasgow, and seventy-five of Edinburgh.

INVERKEITHING, a royal borough of Fife-shire, on the north coast of the Frith of Forth. King William I. granted its first charter, and extended its liberties considerably, which were renewed and confirmed by James VI. in 1598. It has a provost, two baileys, dean of guild, treasurer, and an unlimited number of counsellors, who continue for life. It joins with Queensferry, Culross, Stirling, and Dunfermline, in electing a member of parliament. In the time of David I. it became a royal residence. The Moubrays had large possessions in this town, which were forfeited in the reign of Robert II. The Franciscans and Dominicans had convents in it. To this harbour ships of war sometimes come from Leith roads, to avoid the winter storms; and merchant ships from the Mediterranean formerly used to perform quarantine here.

The harbour itself is a small bay, at the mouth of which, on the west side, lies a floating lazaretto, where the infected goods were received and aired under the inspection of a proper officer. At the head of the bay is a quay, and a narrow channel has been cut further down to admit ships up to it. It has a considerable trade in coals and other articles. It lies eighteen miles north-west of Edinburgh.

INVERLOCHY CASTLE, an ancient castle near Fort William in Inverness-shire; adorned with large towers, which seem to have been the work of the English in the time of Edward I., who laid large fines on the Scottish barons for the purpose of erecting castles. The largest of these is called Cunin's Tower. ‘The castle now stands alone in ancient magnificence, after having seen the river Lochy, that formerly filled its ditches, run in another course, and having outlived all history, and all tradition of its own builder and age. It is a quadrangular building, with round towers at the angles, measuring thirty yards every way within the walls. The towers and ramparts are solidly built of stone and lime, nine feet thick at the bottom, and eight feet above. The towers are not entire, nor are they all equally high. The western is the highest and largest, and does not seem to have been less than fifty feet when entire: the rampart between them, from twenty-five to thirty.—Ten or twelve yards without the walls the ditch begins, which surrounded the castle, from thirty to forty feet broad. The whole building covers about 1600 yards; and within the outside of the ditch are 7000 square yards, nearly one acre and a half English.—The whole building would require from 500 to 600 men to defend it.—From the name of the western tower, it is probable this castle was occupied by the Cummings in the time of Edward I., and there is a tradition that this castle was once a royal residence, and that the famous league between Charles the Great of France, and Acharius king of Scots, had been signed there on the part of the Scotch monarch.’

A.D. 790.

INVERNESS-SHIRE, an important county of Scotland, bounded on the north by Ross-shire, on the east by the shires of Nairne, Murray, and Aberdeen; on the south by those of Perth and Argyll; and on the west by the Atlantic Ocean. Its extent from north to south is above fifty miles, from east to west about ninety-four. A small insulated district between Banff and Moray is also annexed to it; and some of the Hebrides are politically attached to the county; i.e. Harris, North and South Uist, Benbecula, Sky, Barra, Eigg, and the smaller islets on the coast. The vale of Glenmore-nahalabin extends through the centre of the county from east to west, having a chain of lakes, Loch Ness, Loch Oich, Loch Lochy, and an arm of the sea called Lochiel, through which is cutting the navigable canal, to unite the eastern and western oceans; on each side of this extensive vale the surface is wild, barren, and mountainous. Loch Ness, which is the largest of the lakes, is twenty-two miles in length, and from one to two in breadth. Its general depth is 116 or 120 fathoms; but in some parts is 135 fathoms.

The banks of the lakes, and the valleys, have many tracts of good arable land, and the county is every where intersected by numerous rapid currents, which unite and form rivers, the whole of them abounding with trout and salmon. On the borders are several extensive tracts of fir wood, the evident remains of large forests.

The principal rivers are the Ness, the Lochy, the Beauly, and the Spey; those of note are the Findhorn, the Nairne, and the Nevis, all of which are fed by numerous smaller streams. Of these may be mentioned the Foyers, noted for its tremendous cataract. Almost all the rivers have clear and rapid streams, and generally a rocky channel; and those discharging into the German Ocean have longer courses than those which run into the Atlantic. Pure springs of water are every where found. Mineral springs are rare; but sulphurous and chalybeate springs are found in various situations. The western shore is broken by numerous creeks and arms of the sea.

Among the mountains, Bennevis, near Fort William, is the most lofty elevation in Great Britain, being 4370 feet above the level of the sea; the summit is always covered with snow; a great part of it is composed of beautiful brown porphyry, among which is found green porphyry mixed with quartz: the red granite found in this mountain is the most beautiful of any known. There are several other mountains adjoining Bennevis, of nearly the same elevation.

Agriculture is conducted, on the eastern side of the county, with as much skill, spirit, and success, as in any tract northward of the Grampians. But in the interior, and on the western coast, it languishes under the obstructions of the soil and climate; for along the whole of the western it is much more rainy than on the eastern side of the island; it is seldom fair weather there, with a westerly wind; they do not therefore depend on saving their corn in the open air; drying-houses are contrived, where the sheaves hung single, each upon a peg, become fit in a few days, even of rain, to be built in a small stack, to make way on the pegs for the sheaves of another field. The crops, in a great degree uncertain, are inadequate to the support of the people: they are, almost without exception, restricted to oats, with the hairy-bearded husk, a light small kind of bear, and potatoe, which forms a great proportion of their vegetable diet. The principal employment of the farmer is the management of black cattle and sheep, and there are numerous herds of goats; and the mountains and forests are inhabited by immense herds of red deer and roes: Alpine, and the common hares, with a variety of other game, are likewise found in abundance.

The exports of this county may be enumerated under the articles of cattle, wool, corn, the skins of goats, deer, roes, foxes, hares, and rabbits; salmon, herring, some dry and salted fish, some fir timber, with the labors of the hempen and thread manufactures. The spinning of flax and wool is the occupation of the women over the whole county. A small proportion of the wool is manufactured into the home-spun stuffs.

Though the Erse is the language of the country, very good English is spoken in the town of Inverness, and its neighbourhood, and also in the vicinity of the forts. The inhabitants were indebted for the introduction of the English, and for several useful arts, to the soldiers under Oliver Cromwell, who were stationary here for a considerable time.

The military roads through this once impenetrable region, made by the soldiers under general Wade, never fail to excite the astonishment of travellers, being often carried over mountains, and extensive morasses. His object was to open a communication with the other parts of the country, so as to keep the Highlanders in subjection, by connecting the two forts, Fort William and Fort George; for which purpose, he built another in the centre, which he called Fort Augustus. A material benefit which has been derived from these forts, and the roads connected with them, has been the civilisation of the Highlanders.

In the district of Glenelg, are the ruins of some of those circular towers, similar to what is met with in the Western Isles; they are round and tapering like glass-houses; within, horizontal galleries go quite round, connected by stairs which ascend quite to the top, the roof being open. Antiquaries have not decided for what purpose these towers were built; by some they are thought to be Danish forts, by others Druidical temples. The vitrified fort on the summit of Craig Phatrie, near Inverness, is a very remarkable structure.

Near Fort William, in the bed of the river Nevis, is a singular vein of marble of a black ground, with a beautiful white flowering, like needle-work. Here are also veins of lead and iron, and one of silver has been wrought, but unsuccessfully. The want of coal, and indeed the scarcity of fuel of every description, is severely felt in this county.

Inverness-shire comprehends the districts of Badenoch, Lochaber, and Glenelg, which are subdivided into thirty-one parochial districts. The principal towns are Inverness, Fort William or Inverlochy, and Fort Augustus.

INVERNESS, a royal burgh, and capital of the county of that name, finely seated on the south bank of the Ness, over which there is a stone bridge of seven arches. It is large, well built, and populous. Its first charter was granted by king Malcolm Catomore, and its last by James VI. From that period to the Revolution, in 1688, it had a great trade in skins, corn, and malt, &c., but it afterwards declined. After the Rebellion in 1745 this town, however, revived, and is still enlarging in every direction. It has a plentiful market, and more money and business than could be expected in such a remote part of the island. The salmon fishery in the Ness is very considerable, and is let to London-fishmongers. The principal manufactures are those of hemp and flax. The first has been established about fifty years; and employs above 1000 persons in spinning, dressing, and weaving. The raw material is imported from the Baltic, and manufactured into sail-cloth and sacking. A white thread manufactory has been established

nearly forty years; and employs in its various branches of heckling, spinning, twisting, bleaching, and dyeing, no fewer than 10,000 individuals. The company have, in this and the neighbouring countries, several agents for the management of the spinning departments. The flax is also chiefly imported from the Baltic, and the greatest part of the thread sent to London. Tanneries, brickworks, chandleries, &c., are also carried on; and, in consequence of the excellent military roads, there is a great proportion of inland trade. The harbour is safe and commodious, and is kept in good repair. Vessels of 200 tons can unload at the quay, and those of 500 tons ride in safety in the Frith, within a mile of the town. The ships of the town are chiefly employed in carrying salmon and the manufactures of the country to London, and in bringing back various articles of haberdashery, and hardware. Inverness has several good schools, and an academy was erected in 1787, on an extensive scale, wherein all the usual branches of education are taught. There are two parish churches; in the one sermons are delivered in English, and in the other in Gaelic, and, in the chapel of ease, in English and Gaelic alternately. There are also Episcopalian and Methodist chapels. Nearly in the centre of the town stands the court-house, connected with the tolbooth, a handsome modern building, with a fine tower, terminated by an elegant spire, which received considerable injury from the earthquake of 1816. The town is governed by a provost, four bailies, dean of guild, treasurer, and fifteen counsellors; and has six incorporations, two of whose deacons, with their convener, are members of council. It has five fairs, and lies fifty miles north-east of Fort-William, and 106 north of Edinburgh.

INVERNESS, NEW, a town of Georgia, on the Altamaha, erected in 1735 by a company of emigrants from the Highlands of Scotland. In 1738 they presented a most pathetic remonstrance to general Oglethorpe against the introduction of slaves. It lies twenty miles from Frederica.

INVERSE', *adj.* Fr. *inverse*; Lat. *inversus*. INVERSION, *n.s.* { *vertō*. Inverted; reciprocated. INVERT', *v.a.* } procal: opposed to direct.

INVERTEDLY, *adv.* rect. It is so called in proportion, when the fourth term is so much greater than the third, as the second is less than the first; or so much less than the third as the second is greater than the first: inversion, change of order or time, so as that the last is first and the first last; change of place: invert, to turn upside down; to divert into another channel: invertedly, in contrary or reversed order.

Solyman charged him bitterly with *inverting* his treasures to his own private use, and having secret intelligence with his enemies.

Knotte's History of the Turks.

If he speaks truth, it is upon a subtle *inversion* of the precept of God, to do good that evil may come of it.

Browne.

With fate inverted, shall I humbly woo,
And some proud prince, in wild Numidia born,
Pray to accept me, and forget my scorn?

Walte.

Ask not the cause why sullen Spring
So long delays her flowers to bear.
And Winter storms *invert* the year. *Dryden.*
Every part of matter tends to every part of matter,
with a force which is always in a direct proportion
of the quantity of matter, and an *inverse* duplicate
proportion of the distance. *Garth.*

Yes, every poet is a fool;

By demonstration Ned can shew it.

Happy, could Ned's *inverted* rule
rove every fool to be a poet. *Prior.*

Placing the forepart of the eye to the hole of the window of a darkened room, we have a pretty landscape of the objects abroad, *invertedly* painted on the paper, on the back of the eye. *Derham.*

And who but wishes to *invert* the laws
Of order, sins against the Eternal Cause. *Popé.*

Oh Winter! ruler of the *inverted* year,
Thy scattered hair with sleet-like ashes filled. *Couper.*

INVERSE PROPORTION. See ARITHMETIC.

INVERSE METHOD OF FLUXIONS is the method of finding fluents, from the fluxions being given; and is similar to the calculus integrals. See FLUXIONS.

INVERSE METHOD OF TANGENTS is the method of finding the curve belonging to a given tangent; as opposed to the direct method, or the finding the tangent to a given curve. As, to find a curve whose subtangent is a third proportional to $r-y$ and y , or whose subtangent is equal to the semiordinate, or whose subnormal is a constant quantity. The solution of this problem depends chiefly on the inverse method of fluxions.

INVERSION means also the act whereby any thing is turned backwards. Problems in geometry and arithmetic are often proved by inversion; that is, by contrary rule or operation.

INVERSION, invertendo, or by Inversion, according to Euclid's fourteenth definition, lib. v., is inverting the terms of a proportion, by changing the antecedents into consequents, and the consequents into antecedents. As in these $a:b::c:d$, then by inversion $b:a::d:c$.

INVERSION, in grammar, is where the words of a phrase are ranged in a manner not so natural as they might be; e. g. 'Of all vices, the most abominable, and that which least becomes a man, is impurity.' Here is an inversion; the natural order being this; Impurity is the most abominable of all vices, and that which least becomes a man. Inversions are very much used in Latin poetry.

INVERSION, in rhetoric, is a method of confutation, by which the orator shows that the reasons adduced by the opposite party are favorable to his cause. So when Cæcilius urged that the province of accusing Verres ought to be granted to him in preference to Cicero, because he had been his treasurer in Sicily, at the time when the crimes were committed, and consequently was best acquainted with the whole affair, Cicero turns the argument against him, and shows, that, for that very reason, he was the most unfit of any man to be intrusted with his prosecution; since, having been concerned with him in his crimes, he would certainly do all in his power to conceal or lessen them.

INVERTED, in music, signifies a change in the

order of the notes which form a chord, or in the parts which compose harmony: which happens by substituting in the bass those sounds which ought to have been in the upper part: an operation not only rendered practicable, but greatly facilitated, by the resemblance which one note has to another in different octaves; whence we derive the power of exchanging one octave for another with so much propriety and success, or by substituting in the extremes those which ought to have occupied the middle station: and vice versa. In every chord there must be a fundamental and natural order, which is the same with that of its generation; but the circumstances of succession, taste, expression, the beauty of melody, and variety, the approximation of harmony, frequently oblige the composer to change that order by inverting the chords, and consequently the disposition of the parts. See CHORD. Every time, therefore, when the fundamental bass is heard in the lowest parts, or if the fundamental bass be retrenched, every time when the natural order is preserved in the chords, the harmony is direct. As soon as that order is changed, or as soon as the fundamental sounds, without being in the lower parts, are heard in some of the others, the harmony is inverted. The perfect knowledge of inversion depends on art and study alone. See MUSIC.

INVERURY, an ancient royal borough of Aberdeenshire, seated at the conflux of the Don and the Ury, in the district of the Garioch, fourteen miles north-west of Aberdeen. It was made a royal burgh by king Robert I. upon his obtaining a signal victory near it, over Comyn earl of Buchan, Edward I.'s general. Its charters being lost during the civil wars, Mary queen of Scots granted a new one. It is governed by a provost, three bailies, dean of guild, treasurer, and three counsellors. By the exertions of the earl of Kintore and Dr. Thom, the provost, an elegant bridge was built over the Don in 1790, at the south end of the town, at an expense of £2000. It lies fifty-one miles N. N. E. of Dundee.

INVEST', *v. a.* Fr. *investir*; Lat. *inv-* *estimare*, *adj.* } *vestio.* To dress; to clothe; to array; it has *INVEST'ITURE*, *n. s.* } *clothe*; in or with before the thing, superinduced or conferred. To place in possession of rank or office; to adorn or grace; to confer; to enclose; to surround so as to intercept succours: investiture, the right of giving possession of any manor or benefice; the act of giving possession: investment, dress; clothes; habit.

When we sanctify or hallow churches, that which we do is only to testify that we make places of public resort, that we *invest* God himself with them, and that we sever them from common uses. *Hooker.*

Ophelia, do not believe his vows; for they are brokers,
Not of that die which their *investments* shew. *Shakespeare.*

Their gesture sad,
burst in tank lean cheeks and war-worn coats,
Presented them unto the gazing moon,
So many horrid ghosts. *Id. Henry V.*

He had refused to yield up to the pope the *investiture* of bishops, and collation of ecclesiastical dignities within his dominions. *Raleigh's Essays.*

If there can be found such an inequality between man and man, as there is between man and beast; or between soul and body, it *investeth* a right of government. *Bacon.*

Let thy eyes shine forth in their full lustre; *Invest them with thy loveliest smiles, put on Thy choicest looks.* *Deucham's Sopky.*

After the death of the other archbishop, he was *invested* in that high dignity, and settled in his palace at Lambeth. *Clarendon.*

Some great potentate, *Or of the thrones above; such majesty Invests him coming.* *Milton.*

The shells served as plasms or moulds to this sand, which, when consolidated and freed from its *investient* shell, is of the same shape as the cavity of the shell. *Woodward.*

The practice of all ages, and all countries, hath been to do honour to those who are *invested* with publick authority. *Atterbury.*

INVESTIGABLE, *adj.* Latin *investigo*. *INVESTIGATE*, *v. a.* To be searched out:

INVESTIGATION, *n.s.* to investigate is to examine; to search for unknown truth; to find out by rational disquisition. *Hooker.*

In doing evil, we prefer a less good before a greater, the greatness whereof is by reason *investigable*, and may be known. *Hooper.*

Investigate the variety of motions and figures made by the organs for articulation. *Holder on Speech.*

From the present appearances *investigate* the powers and forces of nature, and from these account for future observations. *Chryne.*

Your travels I hear much of: my own shall never more be in a strange land, but a diligent *investigation* of my own territories. *Pope to Swift.*

Not only the *investigation* of truth, but the communication of it also, is often practised in such a method as neither agrees precisely to synthetick or analytick. *Watts.*

INVESTITURE, in law, the giving livery of seisin, was anciently attended with a great variety of ceremonies. At first they were made by a certain form of words, and afterwards by such things as had the greatest resemblance to the thing to be transferred: thus, where lands were intended to pass, a turf, &c., was delivered by the grantor to the grantee. In the church it was customary for princes to make investiture of ecclesiastical benefices, by delivering to the person chosen a pastoral staff and a ring. The kings of England and France, the emperor of Germany, &c., had anciently this right; so that on the death of a prelate, his clergy sent the crozier, &c., to their sovereign, to be used at the ceremony of investing his successor. It appears, indeed, that in the ninth century, the greater part of the European princes made no opposition to the right of electing the bishops, which was exercised by the clergy and the people. The first who disputed the right of investiture with the emperors was Gregory VII., who excommunicated the emperor Henry IV., and forbade all ecclesiastics to receive investiture at the hands of secular princes. This occasioned a long and bloody war; the civil and ecclesiastical powers being divided into two great factions, of which one maintained the rights of

the emperor, while the other seconded the ambitious views of the pontiff. The laws of Gregory for the abolition of regal investitures were confirmed and renewed by Victor III. and Urban II. Pascal II. in a council assembled at Rome, A. D. 1102, renewed the decrees of his predecessors against investitures by secular princes, and the excommunications they had thundered out against Henry IV. Pascal, however, in 1111, was obliged to confirm Henry V. in the right of giving investitures; but in 1112 he assembled a council in the church at Lateran, which solemnly annulled his treaty with the emperor, who was excommunicated. At length, however, Calixtus II. engaged him to renounce his right of investing bishops, and peace was concluded between the emperor and the pope's legates, at a general diet held at Worms, A. D. 1122. This was confirmed the following year in the general council of Lateran, and remains still in force.

INVETERACY, *n.s.* Fr. *inveteré*; Lat. *in* and *vetus*. Con-

INVETERATE, *adj. & v. a.* *in* and *vetus*. Con-

INVETERATENESS, *n.s.* firmed obstinacy in anything evil; long continuance of a disease: inveterate, old; long established; obstinate by continuance: inveteration, the act of hardening, or confirming, by long continuance. These words are applicable to any thing which derives strength from age.

The vulgar conceived, that now there was an end given, and a consummation to superstitious prophecies, and to an ancient tacit expectation, which had by tradition been infused and *inveterated* into men's minds. *Bacon.*

As time hath rendered him more perfect in the art, so hath the *inveterateness* of his malice made him more ready in the execution. *Browne's Vulgar Errors.*

He who writes satire honestly is no more an enemy to the offender, than the physician to the patient, when he prescribes harsh remedies to an *inveterate* disease. *Dryden.*

It is not every sinful violation of conscience that can quench the spirit; but it must be a long *inrete-rate* course and custom of sinning, that at length produces and ends in such a closed effect. *South.*

The *inveteracy* of the people's prejudices compelled their rulers to make use of all means for reducing them. *Addison.*

Let not Atheists lay the fault of their sins upon human nature, which have their prevalence from long custom and *incettered* habit. *Bentley.*

Though Time hath taught My mind to meditate what then it learned,

Yet such the *inveteracy* wrought By the impatience of my early thought,

That, with the freshness wearing out before My mind could relish what it might have sought,

If free to chuse, I cannot now restore Its health; but, what it then detested, still abhor.

Byron. Childe Harold. **INVIDIOUS**, *adj.* Lat. *invidiosus*. Envi-

INVIDIOUSLY, *adv.*ous, combined with ma-

INVIDIOUSNESS, *n.s.* lignant; likely to incur hatred: *invidiousness*, quality of provoking envy.

I shall open to them the interior secrets of this mysterious art, without imposture or *invidious* reserve. *Evelyn.*

The clergy murmur against the privileges of the laity; the laity *invidiously* aggravate the immunities of the clergy. *Sprat.*

Not to be further tedious, or rather *invidious*, these are a few causes which have contributed to the ruin of our morals.

Swift.

INVIG'ORATE, *v. a.* { Lat. *in* and *vigor*.

INVIGORATION, *n. s.* { To endue with vigor; to strengthen: the act or state of invigorating.

Gentle warmth.

Discloses well the earth's all-teeming womb,
Involating tender seeds.

Phillips.

I find in myself an appetitive faculty, which is always in the very height of activity and *invigoration*.

Norris.

I have lived when the prince, instead of *invigorating* the laws, assumed a power of dispensing with them.

Addison.

Christian graces and virtues they cannot be, unless fed, *invigorated*, and animated by universal charity.

Atterbury.

INVIN'CIBLE, *adj.* { Fr. *invincible*; Lat.

INVIN'CIBILITY, *n. s.* { *in* and *vincere*. Insuper-

INVINCIBLY, *adv.* { able; not to be con-
quered or subdued.

O thou most rigorous Queen Thamyris, *invincible*
Upon the strong and hideous people of cities reigning.

Chaucer. *The Nine Ladies Worthie.*

I would have thought her spirits had been *invinci-
ble* against all assaults of affection.

Shakspeare.

Neither invitations nor threats avail with those who
are *invincibly* impeded, to apply them to their benefit.

Decay of Piety.

The spirit remains *invincible*.

Milton.

Ye have been fearless in his righteous cause;

And as ye have received, so have ye done

Invincibly.

Id.

That mistake, which is the consequence of *invinc-
ible* error, scarce deserves the name of wrong judg-
ment.

Locke.

Who firmly stood, in a corrupted state,
Against the rage of tyrants, single stood

Invincible!

Thomson.

INVOL'ABLE, *adj.* { Fr. *inviolable*; Lat.

INVOL'ABLY, *adv.* { *in* and *violo*. Not to

INVOL'ATE, *adj.* { be profaned, injured,
or broken: inviolably, without breach or failure:
inviolate, unhurt; unpolluted; unbroken; applied both to persons and things.

What is the best dower

That may be to a wife appropriate?

A cleane life, was the clerkes answer,

Without sinne, all chaste and *inviolate*,

From all deceits and speeches inornate;

Or countenance which shall be to despise:

No fire make, and no smoke woll arise.

Chaucer. *Goodlie Questions.*

See, see, they join, embrase, and seem to kiss,
As if they vowed some league *inviolate*.

Shakspeare.

His fortune of arms was still *inviolate*.

Bacon's *Henry VII.*

But let *inviolate* truth be always dear

To thee, even before friendship, truth prefer.

Denham.

Thou, be sure, shall give account
To him who sent us, whose charge is to keep

This place *inviolate*, and these from harm.

Milton.

In vain did Nature's wise command

Divide the waters from the land,

If daring ships, and men prohane,

Invade the *inviolate* main;

Th' eternal fences overleap,

And pass at will the boundless deen.

Dryden.

My love your claim *inviolate* secures;

"Tis writ in fate, I can be only yours. *Id.*

This birthright, when our author pleases, must
and must not be sacred and *inviolable*. *Locke.*

The true profession of Christianity *inviolably* engages
all its followers to do good to all men.

Sprat.

IN'VIOS, *adj.* Lat. *invius*. Impassable;
untrodden.

If nothing can oppugn his love,
And virtue *inious* ways can prove,
What may not he confide to do,
That brings both love and virtue too?

Hudibras.

INVISIBIL'ITY, *n. s.* { French, *invisibilité*;

INVIS'BLE, *adj.* { Lat. *invisibilis*. The
INVIS'IBLY, *adv.* { state of being imperceptible to sight: not seen or visible.

The threden sails,

Borne with the *invisible* and creeping wind,
Drew the huge bottoms to the furrowed sea.

Shakspeare.

Age by degrees *invisibly* doth creep,
Nor do we seem to die, but fall asleep.

Denham.

Hypocrisy, the only evyl that walks
Invisible except to God alone

By his permissive will through heaven and earth.

Milton.

He was *invisible* that hurt me so;

And none *invisible*, but spirits, can go. *Sidney.*

He that believes a God, believes such a being as
hath all perfections; among which this is one, that
he is a spirit, and consequently that he is *invisible*,
and cannot be seen. *Tillotson.*

It seems easier to make one's self *invisible* to others,
than to make another's thoughts visible to me, which
are not visible to himself. *Locke.*

They may be demonstrated to be innumerable, substituting their smallness for the reason of their *invisibility*. *Ray.*

Still round him clung *invisibly* a chain,

Which galled for ever, fettering though unseen,
And heavy though it clanked not.

Byron. *Childe Harold.*

INVIS'CATE, *v. a.* Lat. *in* and *viscus*. To
lime; to entangle in glutinous matter.

The cameleon's food being flies, it hath in the
tongue a mucous and slimy extremity, whereby, upon
a sudden emission, it *inviscates* and entangleth those
insects. *Browne.*

INVITATION, *n. s.* { Fr. *inviter*; Lat. *in-
vitor*, *adj.* { *vito*. The act of bid-

INVITE', *v. a.* & *v. n.* ding, or calling to any
INVITER, *n. s.* thing with ceremony or

INVIT'INGLY, *adv.* civility: to bid as to a
feast; to ask to one's house; to allure, per-
suade, or induce; to ask, or call to any thing
pleasing. Inviter, invitingly, the person invit-
ing, and the manner of an invitation.

If thou be *invited* of a mighty man, withdraw thyself. *Eccles.*

A war upon the Turks is more worthy than upon
any other Gentiles, though facility and hope of suc-
cess might invite some other choice. *Bacon.*

Then you my peers, whose quiet expectation
Seemeth my backward tale would fain invite,
Design gently hear this Purple Island's nation,
A people never seen, yet still in sight.

Fletcher. *Purple Island.*

If he can but dress up a temptation to look *invitingly*,
the business is done. *Decay of Piety.*

That other answered with a lowly look,
And soon the gracious *invitation* took. *Dryden.*

Forbidding me to follow thee *invites* me. *Id.*
Wines and eates the tables grace,
But most the kind *inviter's* cheerful face.

Pope's Odyssey.

What beckoning ghost along the moonlight shade
Invites my steps and points to yonder glade?

Id. Elegy to the Memory of an Unfortunate Lady.

When much company is *invited*, then be as sparing
as possible of your coals. *Swift.*

Here enthroned,
Celestial Venus, with divinest airs
Invites the soul to never-fading joy. *Athenaeum.*

Come, Myrrha, let us on to the Euphrates,
The hour *invites*, the galley is prepared.
Byron. Surdamapalus.

For my part I will not consent to take one step
without knowing on what principle I am *invited* to
take it, and (which is perhaps of more consequence),
without declaring on what principle I will not con-
sent that any step, however harmless, shall be taken.
Canning's Speeches.

INULA, elecampane, a genus of the poly-
gamia superflua order, and syngenesia class of
plants; natural order forty-ninth, composita.
The receptacle naked; the pappus simple; the
antheræ, at the base, ending in two bristles.
There are thirty-seven species, of which the most
remarkable is

I. *helenium*, or common elecampane. It is a
native of Britain; but is cultivated in gardens
for the sake of the root, which is used in medi-
cine. The root is perennial, thick, branching,
and of a strong odor. The lower leaves are
eight or nine inches long, and four broad in the
middle, rough on the upper side, but downy on
the under. The stalks rise about four feet high,
and divide toward the top into several smaller
branches, garnished with oblong oval leaves inden-
ted on their edges, ending in acute points.
Each branch is crowned with one large yellow
radiated flower, succeeded by narrow four-cornered
seeds, covered with down. It may be
propagated in autumn by seeds or offsets. The
root, especially when dry, has an agreeable aromatic
smell; its taste, on chewing, is glutinous and somewhat rancid; in a little time it dis-
covers an aromatic bitterness, which by degrees
becomes considerably acrid and pungent. It
possesses the general virtues of alexipharmics,
and is principally recommended for promoting
expectoration in humoral asthmas and coughs.

In examining this plant, Mr. Rose discovered
a new vegetable product to which the name of
Inulin has been given. It is white and pul-
verulent like starch. When thrown on red-hot
coals it melts, diffusing a white smoke, with a
smell of burning sugar. It yields, on distilla-
tion in a retort, all the products furnished by
gum. It dissolves readily in hot water; and
precipitates almost entirely on cooling, in the
form of a white powder; but, before falling
down, it gives the liquid a mucilaginous consis-
tence. It precipitates quickly on the addition
of alcohol. The above substance is obtained
by boiling the root of this plant in four times its
weight of water, and leaving the liquid to settle.
MM. Pelletier and Caventou have found the
same starch-like matter in abundance in the root
of colchicum; and M. Gautier in the root of
pellitory. Starch and inulin combine, and, when

the former is in excess, it is difficult to separate
them. The only method is to pour infusion of
galls into the decoction, and then to heat the
liquid: if inulin be present, a precipitate will
fall, which does not disappear till the tempera-
ture rises to upwards of 212° Fahrenheit.

INUM'BRATE, *v. a.* Lat. *inumbro*. To
shade; to cover with shades.

INUNCT'ION, *n. s.* Lat. *inungo*, *inunctus*.
The act of smearing or anointing.

The wise Author of Nature hath placed on the
rump two glandules, which the bird catches hold
upon with her bill, and squeezes out an oily limi-
ment, fit for the *inunction* of the feathers, and causing
their filaments to cohere? *Ray.*

INUNDATION, *n. s.* Fr. *inundation*; Lat.
inundatio. The overflow of waters; flood; de-
luge. Inundation, says Cowley, implies less
than deluge.

Many good towns through that *inundation* of the
Irish were utterly wasted. *Spenser.*

Her father counts it dangerous

That she should give her sorrow so much sway;
And in his wisdom hastens our marriage,
To stop the *inundation* of her tears. *Shakspeare.*

The next fair river all the rest exceeding,
Topping the hill, breaks forth in fierce evasion,
And sheds abroad his Nile-like *inundation*,
So gives to all the Isle their food and vegetation.
Fletcher's Purple Island.

All fountains of the deep,
Broke up, shall heave the ocean to usurp
Beyond all bounds, 'till *inundation* rise
Above the highest hills.

Milton's Paradise Lost.
Your cares about your banks infers a fear
Of threatening floods, and *inundations* near.
Dryden.

One day as I was looking on the fields withering
with heat, I felt in my mind a sudden wish that
I could send rain on the southern mountains, and
raise the Nile to an *inundation*. In the hurry of my
imagination I commanded rain to fall, and, by com-
paring the time of my command with that of the *inun-*
dation, I found that the clouds had listened to my
lips. *Johnson's Rasselas.*

INVOCATE, *v.a.* Lat. *in* and *voco*. To
INVOCATION, *n. s.* invoke; to call upon or

Invoke', *v.a.* I pray to: invocation, the
act of prayer; the form of calling for aid, or for
the presence of any being. Invoke, synonymous
with invocate.

Is not the name of prayer usual to signify even all
the service that ever we do unto God? And that for
no other cause, as I suppose, but to shew that there
is in religion no acceptable duty, which devout *invoca-*
tion of the name of God doth not either presup-
pose or infer. *Hooker.*

My *invocation* is
Honest and fair, and in his mistress' name.
Shakspeare.

Poor key-cold figure of a holy king!
Be't lawful, that I *invoke* thy ghost,
To hear the lamentations of poor Anne. *Id.*

And over them triumphant death his dart
Shook, but delayed to strike, though oft *invoked*
With vows, as their chief good, and final hope.
Milton.

The power I will *invoke* dwells in her eyes.
Sidney.

The whole poem is a prayer to Fortune, and the *invocation* is divided between the two deities.

Addison on Italy.

The skilful bard,
Striking the Thracian harp, *invokes* Apollo,
To make his hero and himself immortal.

Prior.

He not in vain
Invokes the gentle deity of dreams. *Armstrong.*

Where shall I seek thy presence?
How unblamed *invoke* thy dread perfection?

Barbauld. A Summer Evening's Meditation.

INVOCATION, in divinity, the difference between the invocation of God and of the saints, as practised by the Papists, is thus explained in the catechism of the council of Trent:—We beg of God, to give us good things, and to deliver us from evil; but we pray to the saints, to intercede with God and obtain those things which we stand in need of. Hence we use different forms in praying to God and to the saints: to the former we say, hear us, have mercy on us; to the latter we only say, pray for us. The council of Trent expressly teaches, that the saints who reign with Jesus Christ offer up their prayers to God for men; and condemn those who maintain the contrary doctrine. The Protestants reject this practice as contrary to Scripture, deny the truth of the fact, and think it absurd to suppose, that a limited finite being should be in a manner omnipresent, and at one and the same time hear and attend to prayers offered to him in England, China, and Peru. Hence they infer, that, if the saints cannot hear us, it is folly to pray to them.

IN'VOICE, *n. s.* This word is perhaps corrupted from the French word *envoyez*, send. A catalogue of the freight of a ship, or of the articles and price of goods sent by a factor.

INVOI'VE, *v. a.* Lat. *involvo*. To en-

IN'VOLU'TION, *n. s.* To wrap; to entwist; to im-

ply or comprise; to include; to entangle; to

complicate or blend. Involution, the act of

wrapping; the state of being entangled; that

which is wrapped round any thing.

No man could miss his way to heaven for want

of light; and yet so vain are they as to think they

oblige the world by *involviing* it in darkness.

Decay of Piety.

Leave a singed bottom all *involved*

With stench and smoke. *Milton.*

He knows his end with mine *involved*. *Id.*

Great conceits are raised of the *involution* or mem-

braneous covering called the silly-how, sometimes

found about the heads of children.

Browne's Vulgar Errors.

In a cloud *involved*, he takes his flight,

Where Greeks and Trojans mixed in mortal fight.

Dryden.

As obscure and imperfect ideas often *involve* our

reason, so do dubious words puzzle men's reason.

Locke.

All things are mixed, and causes blended by mu-

tual *involutions*. *Glanville.*

The gathering number, as it moves along,

Involves a vast involuntary throng. *Popé.*

One death *involves*

Tyrants and slaves. *Thomson's Summer.*

What *involution*! what extent! what swarms

Of worlds that laugh at earth! immensely great!

Young.

Now night's dim shades again *involve* the sky,
Again the wanderers want a place to lie,
Again they search and find a lodging nigh.

Parnell. Hermit.

Much learned dust

Involves the combatants, each claiming truth
And truth disclaiming both. *Cowper.*

INVOLUNTARILY, *adv.* Fr. *involontaire*; Lat. *in voluntario*. Not by choice: not having the power of choice; not done willingly.

The forbearance of that action, consequent to such command of the mind, is called voluntary; and whatsoever action is performed without such a thought of the mind, is called *involuntary*. *Locke.*

But why, ah tell me, ah too dear?
Steals down my cheek the' *involuntary* tear? *Pope.*

INJURE, *v. a.* Lat. *in* and *uro*. To
INURE'MENT, *n. s.* To accustom by practice; to habituate; it had anciently *with* before the thing practised: inurement, practice; habit; custom.

That it may no painful work endure,
It to strong labour can itself *inure*.

Huberd's Tale.

Because they so proudly insult, we must a little
inure their ears *with* hearing how others, whom they
more regard, are accustomed to use the self-same
language with us. *Hooker.*

The forward hand, *inured* to wounds, makes way
Upon the sharpest fronts of the most fierce. *Daniel.*

They, who had been most *inured* to business, had
not in their lives ever undergone so great fatigue for
twenty days together. *Clarendon.*

To *inure*

Our prompt obedience. *Milton. Paradise Lost.*

If iron will acquire by mere continuance a secret
appetite, and habitual inclination to the site it held,
then how much more may education, being nothing
else but a constant plight and *inurement*, induce by
custom good habits into a reasonable creature.
Wotton.

Sermons he read, and lectures he endure

And homilies, and lives of all the saints;

To Jerome and to Chrysostom *inured*,

He did not take such studies for restraints.

Byron. Don Juan.

INURN', *v. a.* In and urn. To intomb; to
bury.

The sepulchre

Wherein we saw thee quietly *inurned*,
Hath oped its ponderous and marble jaws
To cast thee up again. *Shakspeare. Hamlet.*
Amidst the tears of Trojan dames *inurned*,
And by his loyal daughters truly mourned.
Dryden.

INUTILE, *adj.* Fr. *inutile, inutilité*; Lat. *inutilis, inutilitas*. Useless; unprofitable: uselessness; unprofitableness.

To refer to heat and cold is a compendious and *inutile* speculation. *Bacon's Natural History.*

INVULNERABLE, *adj.* Fr. *invulnerable*; Lat. *invulnerabilis*. Not to be wounded; secure from wound.

Our cannon's malice vainly shall be spent
Against the' *invulnerable* clouds of heaven.
Shakspeare.

Nor vainly hope
To be *invulnerable* in those bright arms,
That mortal dint none can resist. *Milton.*

INWALL', *v. a.* In and wall. To enclose or fortify with a wall.

Three such towns in those places with the garrisons would be so augmented as they would be able with little to *inwall* themselves strongly.

Spenser on Ireland.

IN'WARD, *adv., adj. & n. s.* *Sax. inƿeƿard.*

IN'WARDS, *adv.*

IN'WARDLY, *adv.*

IN'WARDNESS, *n. s.* *Sax. inƿeƿardness.* curvity into the mind or thoughts: internal; reflecting; deeply thinking; intimate; familiar; seated in the mind: inward, an intimate acquaintance: inwardness, intimacy; familiarity.

Mine bill now maketh finall mention,—

That ye ben ladie, in myne inward thought.

Chaucer. The Count of Love.

His heart with vengeance inwardly did swell,
And forth at last did break in speaches sharpe and fell.

Spenser. Faerie Queene.

Though the lord of the liberty do pain himself all he may to yield equal justice unto all, yet can there not but great abuses lurk in so inward and absolute a privilege.

That which inwardly each man should be, the church outwardly ought to testify.

Hooker.

Looking inward we were stricken dumb; looking upward we speak and prevail.

Id.

You know my inwardness and love
Is very much unto the prince and Claudio.

Shakespeare.

Sir, I was an inward of his; a sly fellow was the duche; and I know the cause of his withdrawing.

Id.

The parts of living creatures that be more inwards, nourish more that the outward flesh.

Bacon's Natural History.

The medicines which go to these magical ointments are so strong, that if they were used inwards they would kill; and therefore they work potently, though outwards.

Bacon.

Yet all these stars which deck this beanteous sky
By force of the inward sun both shine and move;
Throned in her heart sits love's high majesty;
In highest majesty the highest love.

Fletcher's Purple Island.

If of his outward-meanes, theves make a prise;
Hee, more occasion hath to exercise
His inward Riches: and they prove a wealth,
More usefull and lesse lyable to stealth.

G. Withers,

Nor can be easily
Repulsed, without much inward passion felt,
And secret sting of amorous remorse.

Milton's Samson Agonistes.

He stretches out his arm in sign of peace, with his breast bending inward.

Dryden's Dufresnoy.

They esteem them most profitable, because of the great quantity of fat upon their inwards.

Mortimer.

Sickness, contributing no less than old age to the shaking down this scaffolding of the body, may discover the inward structure more plainly.

Pope.

Darkness has more divinity to me;
It strikes thought inward.

Young.

Upon her face there was a trait of grief,
The settled shadow of an inward strife,
And an unquiet drooping of the eye,
As if its lid were charged with unsnd tears.

Byron.

INWEAVE'. Preter. inwove or inweaved, part. pass. inwove, inwoven, or inweaved. In and weave.

To mix any thing in weaving, so that it forms part of the texture.

A fair border, wrought of sundry flowers,

Inwoven with an ivy winding trail.

Spenser.

Down they cast

Their crowns, inwove with amaranth and gold.

Milton.

To entwine; to complicate.

The roof

Of thickest covert was inwoven shade.

Milton..

INWOODY', *v. a.* In and wood. To hide in a wood. Not used.

He got out of the river, inwooded himself so as the ladies lost the marking his sportfulness.

Sidney.

INWRAP', *v. a.* In and wrap.

To cover by involution: to involve.

And over them Arachne high did lift

Her cunning web, and spread her subtil net,

Inwrapped in foul suoak.

Faerie Queene.

This, as an amber drop inwraps a bee,

Covering discovers your quick soul; that we
May in your through-shine front ou heart's thoughts
see.

Donne.

To perplex; to puzzle with difficulty or obscurity.

The case is no sooner made than resolved; if it be
made not inwrapped, but plainly and perspicuously.

Bacon.

It is doubtful whether the following examples should not be entrap or inrap, from Lat. *in* and *rap*, *ratio*, to ravish or transport.

This pearl she gave me I do feelt and see't:
And though 'tis wonder that inwraps me thus,

Yet 'tis not madness.

Shakspeare.

For if such holy song

Enwrap our fancy long

Time will run back, and fetch the age of gold.

Milton.

INWRUGHT', *adj.* In id wrought.
Adorned with work.

Canus, reverend Sir, went footing slow,

His mantle hairy, and his bonnet sedge,

Inrought with figures dim, and on the edge

Like to that sanguine flower inscribed with woe.

Milton.

INWREATHE', *v. a.* In and wreath. To surround as with a wreath.

Bind their resplendent locks inwreathed with

beams.

Nor less the palm of peace inwreathes thy brow.

Thomson.

IO, in fabulous history, the daughter of Inachus, or, according to others, of Jasus and Pirene, was priestess of Juno at Argos. Jupiter became enamoured of her; but, Juno having surprised him in her company, Jupiter changed Io into a beautiful heifer; and the goddess, knowing the fraud, obtained from her husband the animal whose beauty she pretended to commend. Juno commanded the hundred-eyed Argus to watch the heifer; but Jupiter sent Mercury to destroy Argus, and restore Io to her liberty. Juno then sent one of the Furies to torment her. She wandered over the greatest part of the earth, and crossed over the sea, till at last she stopped on the banks of the Nile, still exposed to the torments of the Fury. Here Jupiter restored her to her natural form, after which she brought forth Epaphus. Afterwards she married Osiris, king of Egypt, and treated her sub-

jects with such mildness, that after death she was worshipped under the name of Isis. According to Herodotus, Jo was carried away by Phoenician merchants, who wished to make reprisals for Europa, who had been stolen by the Greeks.

JOAB, יָהָב, Heb. i. e. Fatherhood, a brave general of the Israelites under king David, and the son of Zeruiah, David's sister, and brother of Abishai and Asabel. His defeat of the army under Abner, his capture of the fort of Zion from the Jebusites, and his victories over the Moabites, Philistines, Edomites, Syrians, Ammonites, and the rebels under Absalom and Sheba; as well as his intercession for Absalom, and his judicious advice to David against mourning for his death, and against numbering the people, are recorded in 2 Sam. ii—xxv. He was a faithful adherent to his royal uncle, in his adversity as well as in his prosperity. Joab's greatest crimes appear to have been his treacherously murdering ABNER and AMASA; see these articles, for there seems to have been nothing criminal or treasonable in his joining the party of Adonijah, the heir apparent; and for these murders he was justly put to death by Solomon's order, A. A. C. 1014.

JOACHIM, a celebrated monk, born at Cellico, near Cosenza. He went on a pilgrimage to the Holy Land, and on his return joined the Cistercians; became abbot of Flora in Calabria, and founded several other monasteries, which he governed with great discretion. He was regarded by his followers, see next article, as a prophet, and his predictions were printed in a work entitled *The Everlasting Gospel*. He wrote several other books, and died in 1292.

JOACHIMITES, in church history, the disciples of Joachim. They were particularly fond of certain ternaries: The Father, they said, operated from the beginning till the coming of the Son; the Son, from that time to theirs; A.D. 1260; and from that time the Holy Spirit was to operate. They also divided every thing relating to men, to doctrine, and the manner of living, into three classes, according to the three persons in the Trinity: The first ternary was that of men, of whom the first class was that of married men, which had lasted during the whole period of the Father; the second was that of clerks, which had lasted during the time of the Son; and the last was that of the monks, in which there was to be an uncommon effusion of grace by the Holy Spirit: The second ternary was that of doctrine, viz. the Old Testament, the New, and the everlasting Gospel; the first they ascribed to the Father, the second to the Son, and the third to the Holy Spirit: A third ternary consisted in the manner of living, viz. under the Father, men lived according to the flesh; under the Son, they lived according to the flesh and the Spirit; and under the Holy Ghost, they were to live according to the Spirit only.

JOAN I. queen of Naples, daughter of Charles king of Sicily, was born in 1326; and began to reign in 1345. She married Andrew king of Hungary, whom she murdered, to make room for another husband, whom she also mur-

dered. Lewis, king of Hungary, marched to avenge his brother's death, and compelled her to fly to Provence. Having afterwards recovered her kingdom, she married a third and fourth husband, but having no children adopted Charles de Duras, who, at the instigation of the king of Hungary, smothered her between two mattresses, in 1381.

JOAN (Pope), a fictitious character only worthy of notice as having been the subject of considerable controversy. The fable asserted that, in the middle of the ninth century, a female named Joan who had received an excellent education conceived a violent passion for a young monk at Mentz named Felda; and, in order to obtain admittance to his monastery, assumed the male habit. The plan succeeded, and after having long indulged in their amours undisturbed, they at length eloped, and travelled through many of the countries of Europe, engaging the assistance of the best masters in the sciences in the different cities through which they passed. On the death of her lover, Joan repaired to Rome, still in the dress of a man; and commenced the duties of professor, and persons of the highest rank and most considerable talents enlisted in the number of her disciples. At length, on the death of pope Leo S. in 855, she was unanimously elected his successor to the pontifical throne. At length she confided her secret to a domestic whom she took to her bed, the consequence of which was her pregnancy, and she was taken in labor at one of the most solemn processions, delivered of a child in the street, and died on the spot. It is likewise said, that, to perpetuate the memory of the adventure, a statue was erected on the place where it happened; that, in abhorrence of the crime, the succeeding popes in their annual processions from the Vatican to the Lateran have turned off from that street; and that, to prevent a similar imposition, a custom was introduced of examining each pope previously to his consecration, in order to ascertain his sex. Such are the particulars of a story that seems not to have been called in question till the time of Luther, but which the best informed historians usually abandon as fictitious. 'Till the reformation,' says Gibbon, 'the tale was repeated and believed without offence, and Joan's female statue long occupied her place among the popes in the cathedral of Sicuna. She has been annihilated by two learned Protestants, Blondel and Bayle, but their brethren were scandalised by this equitable and generous criticism. Spanheim and L'Enfant attempted to save this poor engine of controversy. id even Mosheim condescends to cherish some doubt and suspicion.'

JOAN OF ARC, commonly called the Maid of Orleans, was born of low parentage at Domremy, a little village on the borders of Lorraine. She became servant at an inn and attended to the horses. At this time the affairs of France were in a deplorable state, and Orleans was so closely besieged by the duke of Bedford that its capture appeared to be inevitable. In this exigency Joan pretended to have received a divine commission to expel the invaders. On being introduced to the French king Charles V11.

she offered to conduct him to the market place of Orleans to raise the siege, and attend his coronation at Rheims, then in possession of the English. She headed the French troops, and while they were elated by having, as they supposed, an inspired leader, the English were proportionally dismayed. Joan entered Orleans in triumph, and the coronation at Rheims followed; after which Charles caused a medal to be struck in honor of the heroine, and also ennobled her family. The town of Domremi, where she was born, was declared exempt from all imposts for ever. After the coronation, Joan intimated that her mission was at an end, and that she should now retire to private life; but Dunois persuaded her to remain with the army, to cheer the soldiers by her presence. This was to her fatal advice; for being taken with the garrison of Compeigne, the English, to their great disgrace, caused her to be burnt as a sorceress, in the nineteenth year of her age, 1431. Some doubts, however, have been raised against this part of the story; and it has been even said, that so far from being put to death, she lived and was married. Some time after, when public commiseration had succeeded to vindictive bigotry, a woman appeared at Metz, who declared herself to be Joan of Arc. She was every where welcomed with zeal. At Orleans, especially, where Joan was well known, she was received with the honors due to the liberatress of their town. She was acknowledged by both her brothers, Jean and Pierre d'Arc. On their testimony she was married by a gentleman of the house of Amboise, in 1436. At their solicitation her sentence was annulled in 1456. (*Hist. de la Pucelle, par l' Abbé Lenglet. Mélanges Curieux Monstrelet, &c.*)

JOANNA, Anjuan, or Hinzuan, one of the largest and best known of the Comora Islands, between the north end of Madagascar and the continent of Africa, has been governed about two centuries by a colony of Arabs. It is of a triangular shape, and rises in well wooded mountains to a peak in the centre: the whole island abounding with a calcined substance, and other volcanic appearances. The climate is healthy, and the land of the interior tolerably fertile; but this is barren, and the whole neighbourhood has been of late greatly desolated by pirates. See COMORA.

The valleys, or glens, have each their rivulet descending from the mountains which bound them, and whose summits are covered with timber trees, and their bases with cocoa nuts, bananas, oranges, and lemons. The sugar-cane comes to perfection as well as the indigo plant. The only wild animals known on the island are the makis and the common mouse; the domestic ones are small but well tasted; horned cattle with humps, and goats. The cattle are offered at about ten dollars each. The commonest birds are, Guinea fowl, doves, and quails. The population of the island in 1804 was not calculated at more than 6000 or 7000; though it appears to have been formerly much greater. The natives seem to be a mixture of Arabs and negroes; their religion is also a mixture of Mahomedanism and negro idolatry. They are good sailors, and have vessels called trankys, of

some burden, in which they trade to Bombay and Surat with cocoa-nuts and cowries.

Anjuan is governed by a chief or sultan, who pretends to a superiority over the other islands. The people are divided into nobles and peasants; the former are the only merchants, and monopolize the trade of supplying European vessels with fresh provisions, the only purpose for which they touch at this island.

The bay of Moochadon, on the north side of the island, is the place now usually visited by European ships: this bay occupies the whole of this side, the north-east and north-west points of the island being its limits. Off the former are some breakers, but it may be approached within half a mile; and off the north-west point is a small island, called the Paps, united to the point by a reef. Several rivulets fall into this bay, so that watering is easy. The town called Sultan is a mere assemblage of miserable hovels, surrounded by a wall fifteen feet high, flanked with square towers. It is also defended by a kind of fort, on an elevation; the ascent to which is by 300 or 400 steps, enclosed between two walls. There are also two villages on this bay, one on the east, and the other on the west. On a bay of the east side of the island was the town of Anjuan, formerly the usual anchorage of European vessels; but the town was destroyed by the Madagasses, in 1790.

Captain Tomlinson, who was here in 1809, says 'the people of Johanna are the most courteous and inoffensive I have ever met; tendering every assistance to strangers, and executing any commission entrusted to them with the greatest fidelity and care. They have lately been much reduced by the natives of Madagascar, who have annually invaded the islands for the purpose of carrying off slaves, which they sell to the French. The other islands, Comoro, Mohilla, and Mayotta, are nearly depopulated from the attacks of these marauders, and at this time Johanna, from twelve towns, is reduced to two.'

JOANNINA, a considerable city of European Turkey, the capital of Albania. The environs are extremely beautiful: on the one side is a fertile plain, of twelve or fourteen miles in length, covered with groves and plantations of the richest produce; on the other a noble lake, with its well wooded islands, stretches out for a distance of several miles. The town is about two miles and a half in length, its breadth is nearly one. The principal street runs nearly the whole length of the town, and another crosses it at right angles: both, as well as several of the others, are well paved; and the bazaar is large, and full of good shops. The dwelling-houses have generally a court yard planted with trees, or an adjoining garden. The ground-floor is generally used for stables or warehouses, and the windows of the houses are small. On a peninsula, in the lake, and surrounded with walls and fortifications, was the palace of the late pacha. Some of the mosques and churches are worth notice.

The inhabitants, composed of Greeks and Albanians, and in a small proportion of Turks and Jews, neither wear the dress nor speak the language of the surrounding country; but the Romic or modern Greek: in their manners they

resemble the Greeks of Morea. There are here two academies; one for boys, the other, called a gymnasium, for youths farther advanced: at the latter are taught the languages, history, geography and the elementary parts of philosophy. Many of the better class pass several years of their youth at Trieste, Venice, and Vienna.

There are hardly any manufactures in Joannina, except of Turkey leather; but works of embroidery are carried to great perfection. An annual fair is held about a mile from the town, which continues a fortnight, and where a variety of articles of European manufacture are displayed. Large flocks of sheep, and droves of cattle, are likewise brought down from the mountains for sale. The principal articles of import are wool-lens, glass, hardware, paper, and fire-arms: those of export are wool, corn, oil, tobacco, and cattle.

Joannina is said to have been founded in the fifteenth century: but at the beginning of the nineteenth century it grew into notice as the capital of the celebrated Ali Pacha, whose life we have given. It is the see of an archbishop, and stands seventy miles from Larissa, 115 southwest of Salonica, and 400 west by south of Constantinople. Inhabitants about 40,000.

JOANPORE, a district of Allahabad, Hindostan, situated between the Gogra and the Ganges, and intersected by the Goontry. It is extremely fertile and very well cultivated. The inhabitants are Mahomedans and Hindoos, in about equal proportions. Of the latter, the Rajecoomars were much addicted to the inhuman practice of female infanticide. This district was once annexed to Benares, and came into possession of the British about 1780. Its chief towns are Azingur and Joanpore; and it is included in the collectorship of Benares.

JOANPORT, a city of Hindostan, the chief town of the above-mentioned district, was formerly the capital of a principality. The fortress, built in 1370, by sultan Feroze III. of Delhi, was erected around the ruins of a celebrated Hindoo temple, called Kerarbeer. When the empire of Mahmoud was overturned, in the end of the fourteenth century, the governor of the eastern districts, named Khwaje Jehan, assumed the royal dignity, and made Joapore his capital. He was succeeded by his son Mobarik Shah, and shortly after by sultan Ibrahim, who, during a reign of forty years, spared no pains to improve the fortress and city; and several of his mosques and other public buildings still remain. In the next century Joapore fell again to the empire of Delhi. It was often taken during the contest between the Afghauns and Moguls; but, about the year 1570, it was thoroughly repaired, during the government of Monaim Khan, of the court of Akbar. During his government the celebrated bridge of Joapore was built.

The town surrounds the fort on three sides, and contains a good bazaar; but the vicinity for several miles is covered with the ruins of tombs and mosques. Of the latter, that of the Jamai Musjed is very handsome. It is said to have been erected by sultan Ibrahim, during seven years of famine, to give employment to the poor. The date on the great gateway is A H. 852.

Joapore is the station of a civil establishment, of judge, &c., and of a battalion of native infantry.

JOAO DEL REY, a town and district of Brazil, in the country of Minas Geraes. It is situated on the Rio das Mortes, which runs northwards into the Rio das Velhas. The neighbourhood is fertile, and produces excellent fruits.

JOASH, Heb. יָשָׁא, i. e. the fire of the Lord, the son of Ahaziah, king of Judah, the only one of the blood royal who was preserved from his grandmother's bloody massacre. See ATHALIAH. His preservation, coronation, relapse into idolatry, and ungrateful murder of his cousin Zechariah, the son of his benefactors, with his consequent misfortunes and merited death, A. M. 3165, and A. A. C. 839, are recorded in 2 Kings xi. xii. and 2 Chron. xxiii. xxiv.

JOASU, the son of Jehoaz, king of Israel. Though he copied the political idolatry of Jeroboam I. he seems to have had a great respect for Elishah. His last visit to that prophet, with his repeated victories over the Syrians, and over Amaziah king of Judah, with his pillage of Jerusalem, are recorded in 2 Kings xiii. xiv. and 2 Chron. xxv. He died A. M. 3197, and A. A. C. 810; and was succeeded by Jeroboam II.

JOB, n. s., n. a. & v. n. Ital. *gioba*: etymology Job's-tears, n. s. } is doubtful. A piece Job'ber, n. s. } of chance work; a Job'bernowt, n. s. } low mean lucrative affair; a sudden stab with a sharp instrument: to strike suddenly, or drive in a pointed instrument; to buy and sell as a broker: to work occasionally: Job's-tears, an herb: jobber, one who sells stock for others; one who works occasionally: jobbernowl, most probably from Flem. *jobbe*, dull, and Sax. *þnol*, a head, loggerhead; blockhead.

And like the world, men's *jobbernowls*
Turn round upon their ears, the poles.

Hudibras.

As an ass with a galled back was feeding in a meadow, a raven pitched upon him, and sat *jobbing* of the sore.

L'Estrange.

The work would, where a small irregularity of stuff should happen, draw or *job* the edge into the stuff.

Maron.

He was now with his old friends, like an old favourite of a cunning minister after the *job* is over.

Aributhnot.

The judge shall *job*, the bishop bite the town,
And mighty dukes pack cards for half a crown.

Pope.

No cheek is known to blush, no heart to throb
Save when they lose a question, or a *job*.

Id.

So cast it in the southern seas,
And view it through a *jobber's* bill;
Put on what spectacles you please,
Your guinea's but a guinea still.

Swift.

JOB, Heb. יְהֹוָה, i. e. patient, an ancient inhabitant of the land of Uz, east of Gilœau, remarkable for his patience in the midst of the most accumulated and extreme adversity. Many authors have supposed, with the Jewish rabbies, that the character of Job is entirely parabolical, or fictitious; but this is highly improbable, as not only the apostle James (ch. v. 11) mentions

him as a real character, but the language applied to him by the Almighty himself in Ezekiel xiv. 14, 20, puts the matter beyond all possibility of doubt. In that passage he is ranked with Noah and Daniel (who we are sure were no fictitious characters). The period in which Job lived has also been much disputed; but many passages in the book of Job plainly show that he flourished in the patriarchal age. The allusions to the deluge and the destruction of Sodom, and the total silence of Job and his friends with respect to the law (which is never once quoted), and to the departure of the Israelites out of Egypt, show that he must have lived between the former and the latter of these events. But what fixes the chronology of Job, almost to a certainty, is that his aged friend, Eliphaz the Temanite, is expressly recorded to have been the son of Esau, and the father of Teman (Gen. xxxvi. 10, 11), who is said to have built a city named after himself, in which his father resided, and was hence called a Temanite. Alstedius, in his *Thesaurus Chronologicus*, proceeding upon this probability, fixes the era of Job's sufferings in the years of the world 2330 and 2331; and gives two genealogies of Job, by one of which he makes him the son of Uz, or Huz (mentioned Gen. xxii. 21), the eldest son of Nahor, Abraham's brother. The following is appended to the canonical book in the Greek, Arabic, and Vulgate, versions, and is supposed to have been copied from the old Syriac translation. It is therefore unquestionably of very high antiquity. 'Job dwelt in the Ausitis (land of Uz or Utz), on the confines of Idumea and Arabia. His name was at first Jobab. He married an Arabian woman, by whom he had a son called Fanon. He himself was the son of Zerah, of the posterity of Esan, and a native of Bozrah; so that he was the fifth from Abraham. He reigned in Edom (Idumea), and the kings before and after him reigned in the following order:—Balak, the son of Beor, in the city of Dinhabah (often spelt Denaba); and next in succession Job, otherwise called Jobab. To Job succeeded Husham, prince of Teman. After him reigned Hadad the son of Bedad, who defeated the Midianites in the field of Moab. The name of his city was Arith. The friends of Job, who came to visit him, were Eliphaz, of the line of Esau, and king of Teman; Bildad, king of the Shuhites; and Zophar the king of the Naamathites.' Dr. Watkiss, in his *Biographical and Historical Dictionary*, fixes the birth of Job to about A.A.C. 1700. The descent of Elihu also (mentioned in ch. xxxii. ver. 2) from Buz, the second son of Nahor (Gen. xxii. 21), is an additional confirmation that Job lived about this period.

Job, a canonical book of the Old Testament, contains a narrative of Job's misfortunes, the uncharitable surmises of his friends, and his final restoration to prosperity. Those who have supposed Job to be a fictitious character have fancied the book of Job to be dramatic. But this book will be read with most instruction by those who consider it as a simple narrative of facts, left on record to remind us that though 'Man is born to trouble,' and although many trials and difficulties frequently embitter the cup of mortals, yet the design of the Almighty, in permitting these afflictions,

tions, is for our ultimate profit and welfare. In the account we have of the 'Sons of God presenting themselves,' &c., and the agency by which Job was tried and afflicted, the attentive student of Scripture will find interesting information as to the nature and operation of that Evil Spirit distinguished by the name Satan. The style of this book is highly poetical, and it abounds with sublime imagery.

Bishop Warburton is of opinion that this book is an allegorical dramatic poem, written by Ezra, some time between the return of the Jews from the captivity of Babylon, and their thorough settlement in their own country: thus Job is designed to personate the Jewish people; his three friends, the three great enemies of the Jews, Sanballat, Tobiah, and Geshem. Job's wife was intended by the poet to represent the idolatrous wives which many of the Jews had taken, contrary to the law. Le Clerc also supposes that the book of Job was written after the Jews were carried into Babylon, and mentions, in proof of this, the frequent Chaldaisms that occur in it.

Grotius apprehends that this book contains a true history; that the events recorded in it happened in Arabia, whilst the Israelites wandered in the desert; and that the writer, who was a Hebrew, lived before the time of Ezekiel, but after David and Solomon; and that it was written for the use of the Edomites transported to Babylon, to confirm them in the worship of the true God, and to teach them patience in adversity. Schultens ascribes the poetical part of this book, the style of which, he says, has all the marks of the most venerable and remote antiquity, to Job himself; the rest he supposes to be the work of some Hebrew collector. Most of the Jewish doctors believe that Moses was the writer of this book; and M. Huet supposes that it was written by Moses in his exile in the land of Midian.

Dr. Mason Good also inclines to believe that Moses was the writer, and that the last two verses were added by some transcriber. See *Dr. Good's Translation of Job*.

Job, or Ayub (Solomon), an African prince, son of the king of Bondou, in Senegambia, was sent in 1730 by his father to the sea-coast to treat with the English traders, but, being taken prisoner by the Mandingoies, was himself sold as a slave to them. He was taken to Maryland, and employed as a field laborer: but having fled from his master, and excited curiosity, he was ransomed by general Oglethorpe and some other gentlemen, and sent, April 1733, to England. Here he translated, for Sir Hans Sloane, some Arabic MSS., was presented at court, and, having been furnished with valuable presents, set sail for Africa. He reached Fort James, on the Senegal, the 8th of August 1734; but, while preparing to proceed for Bondou, he learnt that his father was dead: his future fate was never known in this country. While in England he wrote three copies of the Koran, from memory.

JOBERT (Lewis), a pious and learned Jesuit, born at Paris in 1647. He distinguished himself as a preacher; and wrote a treatise, entitled *La Science des Médailles*, which is much esteemed, with several other tracts. He died in 1719: the best edition of this work is that of Paris in 1739, 2 vols. 12mo. *

JOCASTA, in fabulous history, the daughter of Menœceus, and wife of Laius king of Thebes, by whom she had **Oedipus**. Having afterwards married **Oedipus**, without knowing him, when she discovered that she had been guilty of incest she hanged herself in despair. She is called **Epicasta** by some mythologists. See **OEDIPUS**.

JOCK'EY, *n.s. & v.u.* From Jack, the diminutive of John, comes Jackey, or, as the Scotch, jockey, used for any boy, and particularly for a boy that rides racehorses; a man that deals in horses; a cheat: jockey, to justle by riding against any one; to cheat or trick.

These were the wise ancients, who heaped up greater honours on Pindar's *jockies* than on the poet himself.

Addison.

JOCOSE, *adj.*

JOCOSE'LY, *adv.*

JOCOSE'NESS, *n.s.*

JOCOSITY, *n.s.*

JOC'ULAR, *adj.*

JOCULARITY, *n.s.*

JOCUND, *adj.*

JOCUNDLY, *adv.*

Lat. *jocosus* and *jocu-*

taris. Merry; waggish:

in jest or sport: merriment;

jesting; used both of men and things: jo-

cund, gay; airy; lively.

Then said our hoste; “certain it woulde seeme
Thy lord were wise, and so I may wel deme;
He is ful *jocunde*, also dare I feye.”

Chaucer. Prologue to the Canterbury Yemannes Tyme.
There's comfort yet; then be thou *jocund*.

Shakspeare.

A laugh there is of contempt or indignation, as well as of mirth or *jocosity*.

Browne's Vulgar Errors.

They on their mirth and dance

Intent, with *jocund* musick charm his ear.

Milton.

The satire is a dramatick poem; the stile is partly serious, and partly *jocular*.

Dryden.

He has no power of himself to leave it; but he is ruined *jocundly* and pleasantly, and damned according to his heart's desire.

South.

Fair nature seems revived, and even my heart
Sits light and *jocund* at the day's return.

Rowe's Royal Courter.

If the subject be sacred, all ludicrous turns, and *jocose* or comical airs, should be excluded, lest young minds learn to trifle with the awful solemnities of religion.

Watts.

How *jocund* did they drive their teams afied!
How bowed the woods beneath their sturdy stroke.

Graie's Elegy.

If I must make a prison of our palace,
At least we'll wear our fetters *jocundly*.

Byron.

JODE (Peter de), an engraver of some note, born in Antwerp. He received his first instructions from Henry Goltzius; and afterwards went to Italy, where he engraved plates from different painters; and returned to Antwerp about 1601, where he resided till his death, A.D. 1634. His works are numerous, and possess considerable merit.

JODE (Peter de), the younger son to the former, was born in 1606. He learned the art of engraving from his father, and surpassed him in taste and the facility of handling the graver; but can hardly be said to have equalled him in correctness of drawing the naked parts of the human figure. They went together to Paris, where they engraved conjointly a considerable number of plates. The son's finest performances are from

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Rubens and Vandyck. Basan says of him, that in several of his engravings he has ‘equalled the best engravers, and in others he has sunk below himself.’ His son, Arnold, was also an engraver, but of very inferior merit.

JODELLE (Stephen), lord of Limodin, was born at Paris in 1532; and distinguished himself so greatly, by his poetical talents, that he was reckoned one of the Pleiades, celebrated by Ronsard. He is said to have been the first Frenchman who wrote plays in his own language according to the ancient style. In his younger years he embraced the reformed religion, and wrote a satire on the mass in 100 Latin verses; but afterwards returned to the Roman Catholic faith. He died in 1579, very poor.

IODINE, in chemistry, a peculiar undecomposed principle so called from the Greek *ἰωδηγη*, violet-colored, on account of the violet color of its vapor. Gay Lussac gave it the appellation of *Ione* from *ιών* the violet: but Sir H. Davy conceiving that this term, in consequence of its derivatives Ionic and Ionian, would lead to ambiguity, suggested iodine, which is now universally adopted. It is preferable to iodine; because more analogous to oxygen and chlorine the names of the only other two supporters of chemical combustion at present discovered. The investigation of this singular substance will always be regarded as an æra of the first importance in chemistry, as it was then that chemical philosophers first generally felt the necessity of abandoning Lavoisier's hypothesis of oxygenation. In 1812 iodine was accidentally discovered by M. de Courtois, a manufacturer of saltpetre at Paris. In his processes for procuring soda from kelp, he found the metallic vessels much corroded; and, in searching for the cause of the corrosion, he made this important discovery. Finding that the cares of his manufacture would not allow him the leisure requisite for the investigation of the properties of this new substance, he communicated the secret to M. Clement, presented him with a quantity of iodine, and requested him to determine its nature. M. Clement accordingly made a number of experiments upon the subject, the results of which were communicated to the French Institute about the end of the year 1813, and afterwards published in the *Annales de Chimie*. He stated its specific gravity to be about 4; that it became a violet-colored gas at a temperature below that of boiling water; that it combined with the metals, and with phosphorus and sulphur, and likewise with alkalies and metallic oxides; that it formed a detonating compound with ammonia; that it was soluble in alcohol, and still more soluble in ether; and that by its action upon phosphorus, and upon hydrogen, a substance having the characters of muriatic acid was formed. In this communication he offered no decided opinion respecting its nature. M. Gay Lussac next undertook the examination of this interesting substance, and published his remarks on it under the title of *Mémoire sur l'Iode*. Meanwhile M. Ampere having presented Sir H. Davy, who was then in Paris, with a quantity of iodine, he subjected it likewise to experiment, and drew similar conclusions with those of Gay Lussac. He published a paper on the subject

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in the Philosophical Transactions for 1814, and has since prosecuted his investigation in several other papers published in subsequent volumes of the same work.

Iodine has been found in the following sea-weeds, the *algæ aquatice* of Linnaeus:—

<i>Fucus cartilagineus,</i>	<i>Fucus palmatus,</i>
<i>membranaceus,</i>	<i>filum,</i>
<i>filamentosus,</i>	<i>digitatus,</i>
<i>rubens,</i>	<i>saccharinus,</i>
<i>nodosus,</i>	<i>Ulva umbilicalis,</i>
<i>scirratus,</i>	<i>pavonia,</i>
<i>siliquosus,</i>	<i>linza, and in sponge.</i>

Dr. Fyfe has shown, in an ingenious paper, published in the first volume of the Edinburgh Philosophical Journal, that on adding sulphuric acid to a concentrated viscid infusion of these *algæ* in hot water, the vapor of iodine is exhaled. But it is from the incinerated sea-weed, or kelp, that iodine in quantities is to be obtained. Dr. Wollaston first communicated a precise formula for extracting it. Dissolve the soluble part of kelp in water. Concentrate the liquid by evaporation, and separate all the crystals that can be obtained. Pour the remaining liquid into a clean vessel, and mix with it an excess of sulphuric acid. Boil this liquid for some time. Sulphur is precipitated, and muriatic acid driven off. Decant off the clear liquid, and strain it through wool. Put it into a small flask, and mix it with as much black oxide of manganese as we used before of sulphuric acid. Apply to the top of the flask a glass tube, shut at one end. Then heat the mixture in the flask. The iodine sublimes into the glass tube. According to Dr. Fyfe no vestiges of iodine can be discovered in sea-water.

The common method of procuring muriatic acid from the saline matter of sea-water, by the addition of sulphuric acid, convinced me, says Dr. Fyfe, that, if this substance contained iodine, it could not in this way be got from it. I was therefore obliged to have recourse to other means. When sea-water is subjected to galvanism in a gold cup, a small quantity of a black powder is formed; this, it is supposed by Sir H. Davy, might be a compound of iodine and gold. To ascertain if this was the case, a quantity of sea-water, concentrated by evaporation, was put into a silver vessel, attached to one end of a galvanic battery; a gold wire from the other end was introduced into the fluid. The silver in a short time acquired a dark coating, and a minute portion of a black powder was formed. This was subjected to the action of fused potassa, and then to sulphuric acid, but without any appearance of iodine. During the preparation of kelp, from which iodine is procured, the vegetable matter is subjected to a high temperature. Conceiving that, perhaps, the iodine might be a product of the combustion, some of the residue of the evaporation of sea-water was mixed with charcoal in powder, and a high heat applied to it. When cold, the mixture was treated with sulphuric acid, but without obtaining any iodine. The saline matter of sea-water was subjected to various other trials, but uniformly with the same result.

Iodine is, however, found in various marine molluscous animals, as the doris, Venus, Ostrea, &c., and even in sponges and Gorgonia. Very lately, this curious substance has been detected by Vauquelin in combination with silver, in some specimens brought from America.

Iodine, however produced, is a solid, of a grayish-black color and metallic lustre. It is often in scales similar to those of micaeous iron ore, sometimes in rhomboidal plates, very large and very brilliant. It has been obtained in elongated octohedrons, nearly half an inch in length; the axes of which were shown by Dr. Wollaston to be to each other, as the numbers two, three, and four, at least so nearly, that, in a body so volatile, it is scarcely possible to detect an error in this estimate, by the reflective goniometer. Its fracture is lamellated, and it is soft and friable to the touch. Its taste is very acrid, though it is very sparingly soluble in water. It is a deadly poison.

Mr. Orfila swallowed six grains of it. The consequence was a most horrible taste, salivation, epigastralgia, colic, nausea, and violent sickness. In ten minutes he had copious bilious vomitings, and slight colic pains. His pulse rose from seventy to about ninety beats in the minute. By swallowing large quantities of mucilage, and emollient clysters, he recovered, and felt nothing next day but slight fatigue. When given to dogs, in the quantity of seventy-two grains or more, it generally produces speedy vomiting, by which means it is thrown out of the system, and the animal saved. But if vomiting does not take place, or if it be prevented by tying the oesophagus, death ensues in the course of three or four days. Iodine, in open vessels, readily evaporates, even at the usual atmospheric heats. When it is spread on a plate of glass, if the eye be placed in the same plane, the violet vapor becomes very obvious at the temperature of 100° Fahrenheit. If left in the open air it will speedily fume away, even at 50° or 60°. When kept in a phial, stopped with a common cork, the iodine also disappears, while the cork becomes friable in its texture, and of a brownish-yellow color. It gives a deep brown stain to the skin, which, however, soon vanishes. In odor, and power of destroying vegetable colors, it somewhat resembles very dilute aqueous chlorine. The specific gravity of iodine at 62° 30' is 4·948. It dissolves in 7000 parts of water. The solution is of an orange-yellow color, and in small quantity tinges raw starch of a purple hue. It melts, according to M. Gay Lussac, at 227° Fahrenheit, and is volatilised under the common pressure of the atmosphere, at the temperature of 350°. Boiling water aids its sublimation.

The specific gravity of its violet vapor is 8·678. It is a non-conductor of electricity, and is combustible, but with azote it forms a curious detonating compound; and, in combining with several bodies, the intensity of mutual action is such as to produce combustion. See CHEMISTRY.

With a view of determining whether it was a simple or compound form of matter, Sir H. Davy exposed it to the action of the highly

inflammable metals. When its vapor is passed over potassium, heated in a glass tube, inflammation takes place, and the potassium burns slowly with a pale blue light. There was no gas disengaged when the experiment was repeated in a mercurial apparatus. The iodide of potassium is white, fusible at a red heat, and soluble in water. It has a peculiar acrid taste. When acted on by sulphuric acid it effervesces, and iodine appears. It is evident that, in this experiment, there had been no decomposition; the result depending merely on the combination of iodine with potassium.

If iodine be put into a glass tube closed at one end, and a piece of phosphorus be dropped in, a violent action immediately takes place, accompanied with the evolution of heat. The phosphorus melts, and an iodide of phosphorus is formed.

The color of this substance is grayish-black, its texture is crystalline, and it easily melts when heated. The combination takes place whatever proportion of phosphorus and iodine be employed. But in one particular proportion there is no redundancy of either of the constituents. This, according to Gay Lussac, takes place when we mix one part by weight of phosphorus with eight parts of iodine. The iodide thus formed is soluble in water. The solution is colorless. When the iodide is dropped into water a kind of effervescence takes place, and a strong odor is exhaled similar to that of muriatic acid. Both the iodine and the phosphorus are converted into acids. The water is decomposed, its oxygen uniting to the phosphorus constitutes phosphorus acid, while the hydrogen, uniting to the iodine, constitutes hydriodic acid. Thenard asserts, that, in the union of iodine and phosphorus, not only caloric, but light is extricated. But Sir H. Davy states that no light is evolved in this process. Repeated experiments have convinced me, says Dr. Traill, of the accuracy of the observation of the British chemist; but it is only justice to M. Thenard to state, that, in the action between these substances, the evolution of light, as well as of caloric, may be shown, according to the mode of making the experiment. If a small piece of dry phosphorus be dropped into a test-tube, and a quantity of iodine, in its usual scaly form, sufficient to cover the phosphorus, be quickly added, an immediate action ensues; the tube becomes hot; fumes of iodine are disengaged; and a deep violet-brown liquid is formed, without the evolution of light, even when the experiment is made in a darkened room. But if the proportion of the phosphorus to the iodine be large, and the latter insufficient to cover the former, the action is accompanied by a momentary flash, which I attribute to the combustion of the uncovered portion of the phosphorus in the scanty portion of atmospheric air in the tube. By varying the proportions of the two substances, I can produce the union with or without the extrication of light at pleasure.

Iodine and sulphur do not unite by simple contact; but if they be mixed in a glass tube, and gently heated, the combination takes place very readily. The color of this compound is grayish-black, and its texture is radiated like

that of sulphuret of antimony. This iodide appears to be composed of one part sulphur and 7·8 iodine. It does not appear to be immediately decomposed by water. But, according to Gay Lussac, the iodine is separated, if this iodide be distilled with water. This iodide is of a more permanent nature than the chloride of sulphur, which is decomposed, and the sulphur deposited the instant it comes in contact with water. According to Van Mons, if we dissolve iodine in muriatic acid, and pour ammonia over the solution, so that the two liquids do not mix, the iodine will, in a short time, crystallise between the two liquids, in fine pyramids, having their bases turned towards the surface of the liquid. 'Hydrogen, whether dry or moist, did not seem,' says M. Gay Lussac, 'to have any action on iodine at the ordinary temperature; but if, as was done by M. Clement in an experiment at which I was present, we expose a mixture of hydrogen and iodine to a red heat in the tube, they unite together, and hydriodic acid is produced, which gives a reddish-brown color to water.'

There are various ways of obtaining this acid. The first method practised was to pour water over the iodide of phosphorus, and expose the mixture to heat. The gaseous acid was expelled, and received in proper vessels. Gay Lussac pointed out a still easier method of obtaining this acid in a state of purity. Put a quantity of iodine and water into a glass vessel, and cause a current of sulphured hydrogen gas to pass through it. The iodine speedily dissolves. When that has taken place stop the process, and expose the liquid to heat to drive off the excess of sulphured hydrogen. The residual liquid is a solution of pure hydriodic acid in water. During this process the sulphured hydrogen is decomposed. Its hydrogen unites to the iodine while its sulphur is precipitated, and is separated from the liquid by filtration. Hydriodic acid thus prepared is a colorless liquid, having an odor very similar to that of muriatic acid, and a sharp acid taste, leaving behind it a sensation of astringency. By heat it may be driven off in the gaseous form and collected in proper vessels.

Hydriodic acid gas is colorless, and possesses the peculiar taste and smell of the liquid acid. Its specific gravity, according to the experiments of Gay Lussac, is 4·443, that of common air being 1. So that it is by far the heaviest gaseous body at present known. When it comes in contact of mercury, it is immediately decomposed by the action of that metal. The mercury unites with the iodine, and forms an iodide; while the hydrogen gas, the other constituent, is left in the gaseous state. It occupies exactly one-half of the volume of the hydriodic acid. Hence it follows, that hydriodic acid gas is composed of one volume of iodine in the state of vapor, and one volume of hydrogen gas, constituting together two volumes. Liquid hydriodic acid, when as much concentrated as possible, is of the specific gravity 1·7. It smokes like muriatic acid, though not so perceptibly. But if a vessel containing it be placed beside another containing chlorine (supposing both open) a purple-colored atmosphere is formed between them, showing very

evidently the volatility of the hydriodic acid. This acid boils at $262\frac{1}{2}^{\circ}$. When hydriodic acid gas is passed through a red hot tube, it is decomposed at least partially. The decomposition is complete if the hydriodic acid gas be mixed with oxygen gas. In that case water is formed and iodine set at liberty. From this experiment it seems to follow that iodine is incapable of decomposing water. Accordingly, if the vapors of iodine and water be passed together through a red hot tube, no oxygen gas is disengaged; yet if water holding iodine in solution is exposed to the solar light, or if it be heated, its peculiar color disappears, and the iodine is converted partly into hydriodic and partly into iodic acid. Now this last acid is a compound of iodine and oxygen; so that in this case water must be decomposed, and one of its constituents must go to the formation of hydriodic, and the other to that of iodic acid. Liquid hydriodic acid very readily dissolves iodine, and acquires a brown color. Even exposing the liquid acid to the atmosphere gives it this color; because the oxygen of the atmosphere decomposes a portion of the hydriodic acid uniting with its hydrogen, and setting the iodine at liberty, which is immediately dissolved by the undecomposed portion of the acid. All the hydriodates have the property of dissolving iodine, and of acquiring a deep reddish-brown color; but the iodine is easily separated again, either by boiling the liquid or by exposing it to the air. See HYDRIODIC ACID and CHEMISTRY.

When iodine is sublimed in chlorine gas it absorbs a considerable quantity of that elastic fluid, and forms a compound of a bright yellow color. When fused it becomes of a deep orange; and in the state of vapor from the action of heat, it has likewise a deep orange color. Sir Humphry Davy, to whom we are indebted for our knowledge of this compound, has given it the name of chlorionic acid. In one experiment he found that eight grains of iodine absorbed five cubic inches and a quarter of chlorine gas. In another experiment twenty grains of iodine absorbed 9·6 cubic inches of chlorine gas. These two experiments do not agree with each other; but in the first a little water was admitted into the retort, in order to dissolve the chlorionic acid formed; while no water was admitted in the second experiment. This liquid doubtless facilitated the absorption of the chlorine gas. See CHLORIODIC ACID and CHEMISTRY.

Iodine readily combines with most of the metals. If silver foil is heated nearly to redness, and the vapor of iodine passed over it, an iodide is formed which has a red color, and melts when exposed to a low red heat. When this substance is heated with hydrate of potassa it is decomposed, and hydriodic acid and oxide of silver are formed. This iodide is composed of one part by weight of silver and 1·13 of iodine.

The iodide of zinc is white, melts readily, and is sublimed in the state of fine acicular four-sided prisms. It rapidly deliquesces in the air, and dissolves in water, without the evolution of any gas. The solution is slightly acid, and does not crystallise. The alkalies precipitate from it white oxide of zinc; while concentrated sulphuric acid disengages hydriodic acid and iodine, because

sulphurous acid is produced. The solution is a hydriodate of oxide of zinc. When iodine and zinc are made to act on each other under water, in vessels hermetically sealed, on the application of a slight heat, the water assumes a deep reddish-brown color, because, as soon as hydriodic acid is produced, it dissolves iodine in abundance. But by degrees the zinc supposed to be in excess, combines with the whole iodine, and the solution becomes colorless like water.

Iron is acted on by iodine in the same way as zinc; and a brown iodide results, which is fusible at a red heat. It dissolves in water, forming a light green solution, like that of muriate of iron. When the dry iodide was heated, by Sir. H. Davy, in a small retort containing pure ammoniacal gas, it combined with the ammonia, and formed a compound which volatilised without leaving any oxide.

The iodide of tin is very fusible. When in powder, its color is a dirty orange-yellow, not unlike that of glass of antimony. When put into a considerable quantity of water, it is completely decomposed. Hydriodic acid is formed, which remains in solution in the water, and the oxide of tin precipitates in white flocculi. If the quantity of water be small, the acid, being more concentrated, retains a portion of oxide of tin, and forms a silky orange-colored salt, which may be almost entirely decomposed by water. Iodine and tin act very well on each other, in water of the temperature of 212° .

There are two iodides of mercury; the one yellow, the other red: both are fusible and volatile. The yellow, or protiodide, contains one half less iodine than the deiodide. The latter, when crystallised, is a bright crimson. All the iodides are decomposed by concentrated sulphuric and nitric acids. The metal is converted into an oxide, and iodine is disengaged. They are likewise decomposed by oxygen at a red heat, if we except the iodides of potassium, sodium, lead, and bismuth. Chlorine likewise separates iodine from all the iodides; but iodine, on the other hand, decomposes most of the sulphurates and phosphurets.

When iodine and oxides act upon each other in contact with water, very different results take place from those above described. The water is decomposed; its hydrogen unites with iodine to form hydriodic acid; while its oxygen, on the other hand, produces, with iodine, iodic acid. All the oxides, however, do not give the same results. We obtain them only with potassa, soda, barotes, strontian, lime, and magnesia. The oxide of zinc, precipitated by ammonia from its solution in sulphuric acid, and well washed, gives no trace of iodate and hydriodate.

The iodides of lead, copper, bismuth, silver, and mercury, are insoluble in water, while the iodides of the very oxidisable metals are soluble in that liquid. If we mix a hydriodate with the metallic solutions, all the metals which do not decompose water will give precipitates, while those which decompose that liquid will give none. This is at least the case with the above mentioned metals.

From all the above recited facts, we are warranting in concluding iodine to be an undecom-

pounded body. In its specific gravity, lustre, and magnitude of its prime equivalent, it resembles the metals: but in all its chemical agencies it is analogous to oxygen and chlorine. It is a non-conductor of electricity, and possesses, like these two bodies, the negative electrical energy with regard to metals, inflammable and alkaline substances; and hence, when combined with these substances in aqueous solution, and electrified in the voltaic circuit, it separates at the positive surface. But it has a positive energy with respect to chlorine; for when united to chlorine, in the chloriodic acid, it separates at the negative surface. This likewise corresponds with their relative attractive energy, since chlorine expels iodine from all its combinations.

It now only remains to mention the different methods that have been contrived to detect the presence of iodine when present in small quantity in saline solutions. It has the property of corroding metals, and especially of blackening silver more powerfully than any other body at present known. It was this property that led to its original discovery in kelp. Sir Humphry Davy employed its property of blackening silver as a method of detecting it in the solutions of the ashes of different sea-weeds.

When sulphuric acid is poured upon a dry salt containing iodine, a reddish brown liquid is obtained. This is a good method of detecting the presence of iodine in salts.

But the most delicate re-agent for iodine, according to Stromeyer, is starch. When this substance is put into a liquid containing iodine in a state of liberty, it detects the presence of so small a quantity as $\frac{1}{40000}$ part, by the blue color which it forms.

Dr. Coindet of Geneva has recommended the use of iodine in the form of tincture, and also hydriodate of potassa or sola, as an efficacious remedy for the cure of glandular swellings, of the goitrous and scrofulous kind. An ointment composed of one ounce of hog's lard, and one drachm of iodide of zinc, has been found to be a powerful external application in such cases. About a drachm of this ointment should be used in friction on the swelling once or twice a day.

For additional remarks on this important subject, see our articles CHEMISTRY, CHLORIODIC ACID, HYDRIODIC ACID, IODIC ACID, and MEDICINE.

IODIC ACID, in chemistry, or oxiodic acid, is thus obtained. When barytes water is made to act on iodine, a soluble hydriodate, and an insoluble iodate of barytes are formed. On the latter, well washed, pour sulphuric acid equivalent to the barytes present, diluted with twice its weight of water, and heat the mixture. The iodic acid quickly abandons a portion of its base, and combines with the water; but, though even less than the equivalent proportion of sulphuric acid has been used, a little of it will be found mixed with the liquid acid. If we endeavour to separate this portion, by adding barytes water, the two acids precipitate together.

Iodic acid has a strong acido-astringent taste, but no smell. Its density is considerably greater than that of sulphuric acid, in which it rapidly sinks. It melts, and is decomposed in o iodine

and oxygen, at a temperature of about 620° . A grain of iodic acid gives out $176\frac{1}{4}$ grain measure of oxygen gas. It would appear from this, that iodic acid consists of $15\cdot5^{\circ}$ iodine, to 5 oxygen.

Iodic acid deliquesces in the air, and is of course very soluble in water. It first reddens and then destroys the blues of vegetable infusions. It blanches other vegetable colors. When a mixture of it, with charcoal, sulphur, resin, sugar, or the combustible metals, in a finely divided state, is heated, detonations are produced; and its solution rapidly corrodes all the metals to which Sir H. Davy exposed it, both gold and platinum, but much more intensely the first of these metals.

It appears to form combinations with all the fluid or solid acids which it does not decompose. See CHEMISTRY, Index.

JOEL, the son of Pethuel, the second of the twelve minor prophets. In his prophecy he upbraids the Israelites for their idolatry, and foretells the calamities they should suffer as the punishment of that sin; but endeavours to support them with the comfort that their miseries should have an end upon their reformation and repentance. Most writers, inferring the order of time in which the minor prophets lived from the order in which they are placed in the Hebrew copies, conclude that Joel prophesied before Amos, who was contemporary with Uzziah, king of Judah. Archbishop Usher infers this from Joel's foretelling that drought, ch. i., which Amos mentions as having happened, ch. iv. 7, 8, 9.

Archbishop Newcome is inclined to favor the conjecture of Drusius: viz. that Joel prophesied under the long reign of Manasseh, and before his conversion, that is, some time from B.C. 697 to (suppose) 660.

JOFFRID, an abbot of Croyland, in Lincolnshire, in the twelfth century. According to Peter of Blois, this ecclesiastic was the founder of the university of Cambridge. He sent, he says, a deputation of three learned Norman monks, named Odo, Terrick, and William, to his manor of Cottenham, near Cambridge, to teach the people in that neighbourhood grammar, logic, and rhetoric. This produced journeys of these monks to Cambridge, where they at first hired a barn, and taught those sciences to a great number of scholars from the surrounding country.

JOG, *v. a.*, *v. n.* & *n. s.* { Dut. *schocken*. To
JOG'GER, *n. s.* } push; to give a sud-
JOG'GLE, *v. n.* } den push; to move
with small shocks, like those of a low trot; to travel idly and heavily: a push or slight shake; an irregular motion: jogger, one who moves heavily along: joggle, to shake.

*Jog on, jog on the foot-path way,
And merrily beat the stile-a,*

A merry heart goes all the day,

Your sad tires in a mile-a.

Shakspeare. Winter's Tale.

*Now leaps he upright, jogs me and cries, Do you
see?*

Yonder well-favoured youth ?

Donne.

*This said, he jogged his good steed nigher,
And steer'd him gently toward the square.*

Hudibras.

Thus they *jog* on, still tricking, never thriving,
And mura'ring plays, which they miscal reviving.

Dryden.

As a leopard was valuing himself upon his party-coloured skin, a fox gave him a *jog*, and whispered, that the beauty of the mind was above that of a painted outside.

L'Estrange.

Sudden I *jogged* Ulysses, who was laid
Fast by my side.

Pope's Odyssey.

JOGHIS, a sect of heathen religious, in the East Indies, who never marry, nor hold any thing in private property; but live on alms, and practise strange severities on themselves. They are subject to a general, who sends them from one country to another to preach. They are, properly, a kind of penitent pilgrims; and are supposed to be a branch of the ancient Gymnosophists. They frequent principally such places as are consecrated by the devotion of the people, and pretend to live several days together without eating or drinking. After having gone through a course of discipline for a certain time, they look on themselves as impeccable, and privileged to do any thing; upon which they give a loose to their passions, and run into all kinds of debauchery.

JOGUES, or YOOGS. See YOOGS.

JOHAN, or ST. JOHAN, the name of six towns in Germany, viz.

JOHAN (St.), in the circle of Bavaria, and archbishopric of Salzburg, eleven miles W. N. W. of Radstadt, and thirty S. S. E. of Salzburg.

JOHAN (St.), in the ci-devant principality of Nassau Saarbruck, now included in the French republic, and department of Mont Tonnere; seated on the Saar, opposite Saarbruck, with which it is connected by a bridge.

JOHAN (St.), in the late county of Sponheim, now included in the French empire, and department of the Rhine and Moselle; nine miles east of Creutznach, and fourteen south-west of Mentz.

JOHAN (St.), three towns in the duchy of Stiria: viz. 1. eight miles E. S. E. of Landspurg: 2. seven miles W. N. W. of Pettaw; and, 3. five miles N. N. W. of Windisch Gratz.

JOHAN-GEORGEN-STADT, a town of Upper Saxony, in Erzgebirg, founded in 1654, by the Protestant miners, who were driven out of Bohemia, and named after the elector John-George I. The mines afford silver, copper, tin, emery, and other minerals. It lies seven miles south of Schwartzenberg.

JOHANNESBERG, or Bischofsberg, a town of Germany, lately in the electorate of Mentz, now annexed to France, and by the division of 1797 included in the department of the Rhine and Nahe; but now, by the last division in 1801, in that of Mont Tonnere. It lies sixteen miles west of Mentz.

JOHN, Heb. יהוָה, i. e. God's grace, the name of many kings, emperors, saints, popes, and other sovereign princes; and the most universal name among subjects in modern Europe.

JOHN, king of Bohemia, a brave but unfortunate monarch, the son of the emperor Henry VII. He was elected king in 1302, when he was only fourteen; and, after defeating the Lithuanians, he

assumed the title of king of Poland. He was wounded in the eye in that expedition, and, upon consulting the physicians to restore the sight of it, a Jewish doctor blinded him entirely. Still, however, his military ardor remained undaunted; he accompanied Philip VI. of France, guided by two knights, to the battle of Cressy, where he fell in 1346. See CRESSY.

JOHN, king of England. See ENGLAND.

JOHN, king of France. See FRANCE.

JOHN SOBIESKI, one of the greatest warriors in the seventeenth century. In 1665 he was made grand marshal of the crown; and, in 1667 grand general of the kingdom. His victories over the Tartars and the Turks procured him the crown, to which he was elected in 1674. He was an encourager of the arts and sciences, and the protector of learned men. He died in 1696, aged seventy-two.

JOHN XXII. a native of Cahors, before called James d'Euse, was skilled in the civil and canon law; and was elected pope after the death of Clement V. on the 7th of August 1316. He published the constitutions called Clementines, which were made by his predecessor; and drew up the other constitutions called Extravagantes. Lewis of Bavaria being elected emperor, John opposed him, which made much noise, and was attended with fatal consequences. That prince, in 1329, caused the antipope Peter de Coribero, a cordelier, to be elected, who took the name of Nicholas V. and was supported by Michael de Cesenne, general of his order; but that antipope was the following year taken and carried to Avignon, where he begged pardon of the pope with a rope about his neck, and died in prison two or three years after. Under this pope arose the famous question among the cordeliers, called the bread of the cordeliers; which was, Whether those monks had the property of the things given them, at the time they were making use of them? for example, Whether the bread belonged to them when they were eating it, or to the pope, or to the Roman church? This frivolous question gave great employment to the pope; as well as those which turned upon the color, form, and stuff, of their habits, whether they ought to be white, gray, or black? Whether the cowl ought to be pointed or round, large or small? Whether their robes ought to be full, short, or long; of cloth, or of serge, &c.? The disputes on all these minute trifles were carried so far between the minor brothers, that some of them were burnt. John died at Avignon in 1334, aged ninety.

JOHN MARK, the nephew of St. Barnabas. See BARNABAS and MARK.

JOHN (St.), of Beverley.

JOHN OF GAUNT, duke of Lancaster, a renowned general, father of Henry IV. king of England, died in 1438.

JOHN OF SALISBURY, bishop of Chartres in France, was born at Salisbury in Wiltshire, in the beginning of the twelfth century. In 1136 he was sent to Paris, where he studied under several eminent professors, and acquired considerable fame for his proficiency in rhetoric, poetry, divinity, and the learned languages. Thence he travelled to Italy; and, during his residence at Rome, was in favor with popes

Eugene III. and Adrian IV. After his return to England, he became the intimate friend and companion of the famous Becket, archbishop of Canterbury, whom he attended in his exile, and he is said to have been present when he was murdered in his cathedral. In 1176 he was promoted by Henry II. to the bishopric of Chartres, where he died in 1182. He was one of the first restorers of the Greek and Latin languages in Europe, and an elegant Latin poet. He wrote several books; the principal of which are, his Life of St. Thomas of Canterbury, a collection of letters, and Polycraticon.

JOHN (St.), THE BAPTIST, the fore-runner of Jesus Christ, was the son of Zacharias and Elizabeth. He retired into a desert, where he lived on locusts and wild honey; and about the year A.D. 29 began to preach repentance, and to declare the coming of the Messiah. He baptised his disciples, and the following year Christ himself was baptised by him in the Jordan. Some time after, having reproved Herod Antipas for his adultery and incest, he was cast into prison, where he was beheaded. See HEROD. His head was brought to Herodias, who, according to St. Jerome, pierced his tongue with a bodkin in revenge for his reproof.

JOHN (St.), THE EVANGELIST, and apostle, was the son of Zebedee, and brother of St. James the Great. He quitted the business of fishing to follow Jesus, and was his beloved disciple. He was witness to the actions and miracles of his master; was present at his transfiguration, and was with him in the garden of Olives. He was the only apostle who followed him to the cross; and to him Jesus left the care of his mother. He was also the first apostle who knew him again after his resurrection. He preached the faith in Asia; and principally resided at Ephesus, where he maintained the mother of our Lord. He is said to have founded the churches of Sinyrna, Pergamus, Thyatira, Sardis, Philadelphia, and Laodicea. He is also said to have preached the gospel among the Parthians, and to have addressed his first epistle to that people. It is related, that, when at Rome, the emperor Domitian caused him to be thrown into a cauldron of boiling oil, when he came out unhurt; on which he was banished to the isle of Patmos, where he wrote his Apocalypse. After the death of Domitian, he returned to Ephesus, where he composed his Gospel, about the year 96; and died there, in the reign of Trajan, about the year 100, aged ninety-four.

JOHN (St.), THE GOSPEL OF, a canonical book of the New Testament, contains a recital of the life, actions, doctrine, and death, of our Saviour Jesus Christ, written by St. John the apostle, at Ephesus, after his return from Patmos, at the desire of the Christians of Asia. St. Jerome says, he would not undertake it, but on condition that they should appoint a public fast to implore the assistance of God; and that, the fast being ended, St. John, filled with the Holy Ghost, broke out into these words, 'In the beginning was the Word,' &c. The ancients assign two reasons for the undertaking; the first was, because, in the other three Gospels, there was wanting the history of the beginning of Jesus

Christ's preaching, till the imprisonment of John the Baptist, which, he applied himself particularly to relate. The second was to remove the errors of the Cerinthians, Ebionites, and other sects.

JOHN O'GROAT'S HOUSE, an ancient house, in Caithness-shire, seated on Dungay-bay, or Duncan's Bay Head, and remarkable for being the most northerly point in Great Britain; on which account it has been often visited by travellers. But, if it has acquired fame from its peculiar local situation, it merits no less celebrity on account of its origin. In the reign of James IV. Malcolm, Gavin, and John de Groat, supposed to have been brothers, and originally from Holland, arrived in Caithness, from the south of Scotland, bringing with them a letter written in Latin by that prince, recommending them to the countenance and protection of his loving subjects in the county of Caithness. They purchased or got possession of the lands of Warse and Dungisbay, in the parish of Canisbay, on the Pentland Frith, and each of them obtained an equal share of the property they acquired. In process of time their families increased, and there came to be eight different proprietors of the name of Groat. These eight families, having lived comfortably in their possessions for many years, established an annual meeting to celebrate the anniversary of the arrival of their ancestors on that coast. In the course of their festivity on one of these occasions, a question arose respecting the right of taking the door and sitting at the head of the table, and such like points of precedence, each contending for the seniority and chieftainship of the clan; which increased to such a height as would probably have proved fatal to some, if not to all of them, had not John de Groat, who was proprietor of the ferry, interposed. He, having procured silence, expatiated on the happiness they had hitherto enjoyed, owing to the harmony which had subsisted among them. He assured them, that, as soon as they appeared to quarrel among themselves, their neighbours would fall upon them, take their property, and expel them from the country. He therefore conjured them, by the ties of blood, and their mutual safety, to return quietly that night to their homes; and pledged himself that he would satisfy them all with respect to precedence, and prevent the possibility of such disputes among them at their future anniversary meetings. They all acquiesced, and departed in peace. In due time John de Groat built a room, distinct by itself, of an octagon shape, with eight doors and windows in it; and, having placed in the middle a table of oak, of the same shape, when the next anniversary took place, he desired each of them to enter at his own door, and sit at the head of the table, he himself taking the seat that was left unoccupied. By this ingenious contrivance, any dispute, in regard to rank, was prevented, as they all found themselves on a footing of equality, and their former harmony and good humor were restored. That building was then named John O'Groat's House; and, though the house is totally gone, the place where it stood still retains the name, and the oak table remained in the possession of John Sutherland of Wester in the year 1720.

JOHN'S (St.), an important island in the gulf of St. Lawrence, near the northern coast of Nova Scotia, to which it is politically annexed. It is 117 miles in length from north-east to south-west. The medium breadth is twenty miles; between Richmond Bay, however, on the north, and Halifax Bay on the south, it is not above three miles broad. The coasts both north and south are every where indented with bays; and it has several fine rivers, and a rich soil. The rivers abound with trout, salmon, and eels; and the surrounding sea affords plenty of sturgeon, plaice, and shell-fish. The capital is Charlotte Town. Upon the reduction of Cape Breton, in 1745, the inhabitants submitted to the British. When taken, it had 10,000 head of black cattle upon it, and the farmers raised 12,000 bushels of corn annually. The island is divided into three counties, viz. King's, Queen's, and Prince's; which are subdivided into fourteen parishes, consisting of twenty-seven townships, which in all make 1,363,400 acres, the contents of the island. Besides the capital, the chief towns are George Town, and Prince's Town: besides which are Hillsborough Town, Pownal Town, Maryborough Town, &c. It lies between 45° 46' and 47° 10' N. lat., and between 44° 22' and 46° 32' W. long.

JOHN'S (St.), one of the Virgin Islands, about twelve leagues east of Porto Rico.

JOHN'S LAKE (St.), a large lake of Canada, which receives rivers in every direction, and sends its waters through the Saguenay into the St. Lawrence. It is about twenty-five miles every way, and its nearest part is thirty-six leagues N.N.W. of Quebec. Long. 72° 25' W., lat. 48° 25' N.

JOHN'APPLE, n.s.

A *johnapple* is a good relished sharp apple the Spring following, when most other fruit is spent: they are fit for the cyder plantations. *Mortimer.*

JOHNSON (Martin), an eminent landscape painter, who flourished in the reign of James II. His views in England are very scarce and valuable, being only to be found in the collections of connoisseurs.

JOHNSON (Thomas), a celebrated classical scholar, of Oxfordshire, was educated at Magdalen College, Cambridge, of which he was a fellow, and where he took the degree of M.A. in 1692, after which he left the university and was a school assistant at Eton and Ipswich; he himself kept a school at Brentford and other places; but neither the time of his birth nor of his death is known. His character is said to have been loose; but he was a very superior scholar. He is known as the editor of Sophocles, Oxford and London, 1705 and 1746, 3 vols.; Gratius de Venatione, cum notis; Cebetis Tabula; Graecorum Epigrammatum electus; Quæstiones Philosophicæ; An Essay on Moral Obligations. He was also an editor of Stephens's Thesaurus Lingue Latina.

JOHNSON (Maurice), an English antiquary, born at Spalding in Lincolnshire, and bred to the law. He established a literary society at Spalding, and was one of the founders of the Antiquarian Society, to which he sent numerous contributions. He died in 1755.

JOHNSON (Samuel), an English divine, remarkable for his learning, and steadiness in suffering for the principles of the Revolution in 1688. He was born in 1670, the rector of Corringham in Essex, worth £80 a year. The air of this place not agreeing with him, he was obliged to place a curate on the spot, at the expense of half his income, while he settled in London. The times were turbulent; the duke of York declared himself a papist; his succession to the crown began to be warmly opposed; and Mr. Johnson, being made chaplain to lord William Russel, engaged Dr. Hicks, the ecclesiastical champion for passive obedience, in a treatise entitled Julian the Apostate, &c., published in 1683. He was answered by Dr. Hicks, in a piece entitled Jovian, &c. To which he drew up, and printed, a reply, under the title of Julian's Arts to Undermine and Exirpate Christianity, &c.; but by the advice of his friends suppressed the publication. For this unpublished work he was committed to prison; but, not being able to procure a copy, the court prosecuted him for writing the first tract, condemned him to pay a fine of 500 merks, and to lie in prison till it was paid. By the assistance of Mr. Hampden, who was his fellow-prisoner, he was enabled, on the encampment of the army on Hounslow-heath, in 1686, to print and disperse, A Humble and Hearty Address to all the Protestants in the present Army; for this he was sentenced to pay a second fine of 500 merks, to be degraded from the priesthood, to stand twice in the pillory, and to be whipped from Newgate to Tyburn. It happened, that, in the degradation, they omitted to strip him of his cassock; which rendered his degradation imperfect, and preserved his living. Intercession was made to get the whipping omitted; but James replied, 'That, since Mr. Johnson had the spirit of martyrdom, it was fit he should suffer.' and he bore it with firmness, and even alacrity. On the Revolution, the parliament resolved the proceedings against him to be null and illegal; and recommended him to the king, who offered him the rich deanery of Durham: but this he refused as inadequate to his services and sufferings, which he thought merited a bishopric. Through Dr. Tillotson he obtained a pension of £300 a year, with some other gratifications; notwithstanding which, he wrote against a standing army, and the great favor shown to the Dutch. He died in 1703, and his works were afterwards collected in one vol. folio.

JOHNSON (Samuel), LL.D. the celebrated lexicographer, and one of the brightest ornaments of the eighteenth century, was born at Litchfield in Staffordshire, on the 18th of September, new style 1709. His father Michael Johnson was a bookseller, and more than once bore the office of chief magistrate; though he was zealously attached to the exiled family, and instilled the same principles into his son. But political prejudices were not the only evils which Dr. Johnson inherited from his father: he derived from him also a morbid melancholy, which, though it neither depressed his imagination, nor clouded his perspicacity, filled him with dreadful apprehensions.

hensions of insanity, and rendered him wretched through life. From his nurse he is said to have contracted the king's evil, which disfigured a face naturally well formed, and deprived him of the sight of one of his eyes. When arrived at a proper age for grammatical instruction, he was placed in the free school of Litchfield, of which one Hunter was then master : a man whom his illustrious pupil thought wrong-headedly severe. At the age of fifteen, Johnson was sent to the school of Stourbridge in Worcestershire, at which he remained little more than a year, and then returned home ; in his nineteenth year, he was entered a commoner of Pembroke College, Oxford, and his mind was stored with such a variety of knowledge as is seldom acquired in universities. He had given very early proofs of his poetical genius both in his school exercises and in other occasional compositions ; but what is more remarkable, as it shows that he must have thought much on a subject, on which other boys at that age seldom think at all, he had before he was fourteen entertained doubts of the truth of revelation. From the melancholy of his temper, these naturally preyed upon his spirits, and gave him great uneasiness ; but they were happily removed by a proper course of reading ; for his studies, being honest, ended in conviction. He found that religion is true : and what he had learned, he ever afterwards endeavoured to teach. This account Mr. Boswell affects to ridicule, as if it were impossible, that a boy should have any religious scruples. But Boswell is mistaken. Sir J. Hawkins and Mr. Boswell differ in their accounts of Johnson's studies at the university. According to the former, the time of his continuance at Oxford is divisible into two periods : Mr. Boswell represents it as only one period, with the usual interval of a long vacation. Sir John says, that he was supported at college by Mr. Andrew Corbet, in quality of assistant in the studies of his son : Mr. Boswell assures us, that though he was promised pecuniary aid by Mr. Corbet, that promise was not in any degree fulfilled ; and adds, that Johnson, though his father was unable to support him, continued three years at college, and was then driven from it by extreme poverty. For some transgression or absence, his tutor imposed upon him as a Christmas exercise the task of translating into Latin verse Pope's *Messiah* ; which, being shown to Mr. Pope, was returned with this encomium, 'The writer of this poem will leave it a question for posterity, whether his or mine be the original.' At this period he read much, but his mode of study was never regular, and at all times he thought more than he read. He informed Mr. Boswell, that what he read solidly at Oxford was Greek, and that the study of which he was most fond was metaphysics. In 1731 Johnson left the university without a degree ; and as his father, who died in December that year, had suffered great misfortunes in trade, he was excluded from the regular modes of profit and prosperity. Having therefore not only a profession, but the means of subsistence to seek, he accepted, in March 1732, an invitation to the office of under master of a free school at Market-Bosworth in Leicestershire : but, being

disgusted at the treatment which he received from the patron of the school, he relinquished in a few months a situation which he ever afterwards recollects with horror. Being thus again without any fixed employment, and with very little money, he translated Lobo's *Voyage to Abyssinia*, for the sum of five guineas, for a bookseller in Birmingham. This was the first attempt which he made to procure pecuniary assistance by means of his pen. In 1735, being then in his twenty-sixth year, he married Mrs. Porter, the widow of a mercer in Birmingham ; whose age was almost double his ; whose external form, according to Garrick and others, had never been captivating ; but whose fortune amounted to £800. That she had a superiority of understanding is very probable, both because she inspired him with a more than ordinary passion, and because she was herself so delighted with his conversation as to overlook his external disadvantages. He now commenced a private academy ; for which purpose he hired a large house near his native city ; but the undertaking did not succeed. The only pupils who are known to have been placed under his care, were the celebrated David Garrick, his brother George Garrick, and a young gentleman of fortune, whose name was Offely. He kept his academy only a year and a half, and during that time he wrote a great part of his tragedy of *Irene*. The respectable character of his parents and his own merit, however, had secured him a kind reception in the best families at Litchfield ; and he was particularly distinguished by Mr. Walmsley, register of the ecclesiastical court. That gentleman, upon hearing part of *Irene* read, thought so highly of Johnson's abilities, that he advised him by all means to finish the tragedy and produce it on the stage. Flattered with this suggestion, he set out some time in 1737 with his pupil David Garrick for London, leaving Mrs. Johnson to take care of the house and the wreck of her fortune. The two adventurers carried with them from Walmsley an earnest recommendation to the Rev. Mr. Colson, then master of an academy, and afterwards Lucasian professor of mathematics in the university of Cambridge ; but from that gentleman it does not appear that Johnson found either protection or encouragement. His tragedy was refused by the managers, and for some years the Gentleman's Magazine seems to have been his principal resource for employment and support. To enumerate his various communications to that far-famed miscellany, would extend this article beyond all due limits. Suffice it to say, that his connexion with Cave the proprietor became very close ; that he wrote prefaces, essays, reviews of books, and poems ; and occasionally corrected the papers written by other correspondents. When the complaints of the nation against the administration of Sir Robert Walpole became loud, and a motion was made on the 13th of February, 1740-1, to remove him from his majesty's counsels for ever, Johnson was selected by Cave to write what was in the magazine entitled *Debates in the Senate of Lilliput*, but was known to be the speeches of the most eminent members in both houses of parliament. These orations

which induced Voltaire to compare British with ancient eloquence, were hastily sketched by Johnson while he was not thirty-two years old, while he was little acquainted with life, and while he was struggling not for distinction but for existence. Perhaps in none of his writings has he given a more conspicuous proof of a mind prompt and vigorous almost beyond conception : for they were composed from scanty notes taken by illiterate persons employed to attend in both houses ; and sometimes he had nothing communicated to him but the names of the several speakers, and the part which they took in the debate. His separate publications which at this time attracted the greatest notice, were, London, a Poem in imitation of Juvenal's third Satire ; Marmor Norfolciense, or an Essay on an ancient Prophetical Inscription in Monkish Rhyme, lately discovered near Lynne in Norfolk ; and a complete Vindication of the Licensors of the Stage, from the malicious and scandalous aspersions of Mr. Brook, author of Gustavus Vasa. The poem, published in 1738 by Dodsley, is universally known and admired, as the most spirited instance in the English language of ancient sentiments adapted to modern topics. Pope, who then filled the poetical throne without a rival, being informed that the author's name was Johnson, and that he was an obscure person, replied, ' he will soon be deterré ;' i. e. dug out of the ground. The other two pamphlets, which were published in 1739, are filled with keen satire on the government : and though Sir John Hawkins asserts, that they display neither learning nor wit, Pope was of a different opinion : for in a note of his, preserved by Mr. Boswell, he says, that the whole of the Norfolk prophecy is very humorous.

Mrs. Johnson, who went to London soon after her husband, now lived sometimes in one place and sometimes in another, sometimes in the city and sometimes at Greenwich : but Johnson himself was oftener to be found at St. John's Gate, where the Gentleman's Magazine was published, than in his own lodgings. There he became acquainted with Savage, with whom he was induced, probably by the similarity of their circumstances, to contract a very close friendship ; and such were their extreme necessities, that they have often wandered whole nights in the street for want of money. In 1744 he published the life of his unfortunate companion ; a work which, had he never written any thing else, would have placed him very high in the rank of authors. His narrative is remarkably smooth and well disposed, his observations just, and his reflections disclose the inmost recesses of the human heart.

In 1749, when Drury Lane theatre was opened under the management of Garrick, Johnson wrote a prologue for the occasion ; which, for just dramatic criticism on the English stage, as well as for poetical excellence, is confessedly unrivalled. This year is also distinguished as the epoch when his arduous and important work, the Dictionary of the English Language, was announced to the world, by the publication of its plan or prospectus, addressed to the earl of Chesterfield. From that nobleman

Johnson was certainly led to expect patronage and encouragement ; and it seems to be equally certain that, without affording either, his lordship expected, when the book should be published, to be honoured with the dedication. The expectations of both were disappointed. Lord Chesterfield, after seeing the lexicographer once or twice, suffered him to be repulsed from his door ; but afterwards, thinking to conciliate him when the work was upon the eve of publication, he wrote two papers in *The World*, warmly recommending it to the public. This artifice was seen through ; and Johnson, in very polite language, rejected his lordship's advances, letting him know that he was unwilling the public should consider him as owing to a patron, that which Providence had enabled him to do for himself. This great and laborious work its author expected to complete in three years ; but he was employed upon it seven ; for, it was begun in 1747, and the last sheet was sent to the press in the end of 1754. The 'sorrow' to which he alludes, in his celebrated preface, is probably that which he felt for the loss of his wife, who died on the 17th of March, O. S., 1752, and whom he continued to lament as long as he lived. The *Dictionary* did not occupy his whole time : for, while he was pushing it forward, he fitted his tragedy for the stage ; wrote the lives of several eminent men for the *Gentleman's Magazine* ; published an Imitation of the tenth Satire of Juvenal, entitled *The Vanity of Human Wishes* ; and began and finished *The Rambler*. This last work was published twice a-week, from the 20th of March 1750, to the 14th of March 1752, inclusive. Notwithstanding the severity of his other labors, all the assistance which he received in this work did not amount to five papers ; and many of the most masterly of his unequalled essays were written on the spur of the occasion, and never seen entire by the author till they returned to him from the press. Soon after the *Rambler* was concluded, Dr. Hawkesworth projected *The Adventurer* upon a similar plan ; and, by the assistance of friends, he was enabled to carry it on with almost equal merit. For a short time, indeed, it was the most popular work of the two ; and the papers with the signature T, which are confessedly the most splendid in the whole collection, are now known to have been communicated by Johnson, who received for each the sum of two guineas.

This was double the price for which he sold sermons, to such clergymen as either would not or could not compose their own discourses. Though he had exhausted, during the time that he was employed on the *Dictionary*, more than the sum for which the booksellers had bargained for the copy ; yet, by means of the *Rambler*, *Adventurer*, sermons, and other productions of his pen, he now found himself in affluence ; and as the powers of his mind, distended by long and severe exercise, required relaxation, he appears to have done little or nothing from the closing of the *Adventurer* till 1756, when he accepted the office of reviewer in *The Literary Magazine*. Of his reviews, by far the most valuable is that of Soame Jenyns's *Free Enquiry into the Nature and Origin of Evil*. But the furnishing of

magazines, reviews, and newspapers, with literary intelligence, and authors of books with dedications and prefaces, was considered as an employment unworthy of Johnson. It was therefore proposed by the booksellers, that he should give a new edition of the dramas of Shakspeare; a work which he had projected many years before, and of which he had published a specimen, which was commended by Warburton. When one of his friends expressed a hope that this employment would furnish him with amusement, and add to his fame, he replied, 'I look upon it as I did upon the Dictionary; it is all work; and my inducement to it is not love or desire of fame, but the want of money, which is the only motive to writing that I know of.' He issued proposals, however, of considerable length; in which he showed, that he knew perfectly what a variety of research such an undertaking required; but his indolence prevented him from pursuing it with diligence, and it was not published till many years afterwards.

On the 15th of April, 1758, he began a new periodical paper, entitled the *Idler*, which came out every Saturday in a weekly newspaper, called the *Universal Chronicle, or Weekly Gazette*, published by Newberry. Of these essays, which were continued till the 5th of April 1760, many were written as hastily as an ordinary letter; and one in particular, composed at Oxford, was begun only half an hour before the departure of the post which carried it to London. About this time he had the offer of a living, of which he might have rendered himself capable by entering into orders. It was a rectory in a pleasant country, of such yearly value as would have been an object to one in much better circumstances; but, sensible of the asperity of his temper, he declined it, saying, 'I have not the requisites for the office, and I cannot in my conscience shear the flock which I am unable to feed.'

In January, 1759, his mother died at the great age of ninety; an event which deeply affected him, and gave birth to the forty-first *Idler*, in which he laments, that 'the life which made his own life pleasant was at an end, and that the gate of death was shut upon his prospects.' Soon afterwards he wrote his *Rasselas Prince of Abyssinia*; that with the profits he might defray the expense of his mother's funeral, and pay some debts which she had left. He told a friend, that he received for the copy £100, and £25 more when it came to a second edition; that he wrote it in the evenings of one week, sent it to the press in portions as it was written, and had never since read it over. Having been early in 1762 represented to the king as a learned and excellent man without any certain provision, his majesty was pleased to grant him a pension, which lord Bute, then first minister, assured him 'was not given for any thing which he was to do, but for what he had already done.' A fixed annuity of £300 a year, if it diminished his distress, increased his indolence; for, as he constantly avowed that he had no other motive for writing than to gain money, as he had now what was abundantly sufficient for all his purposes, as he delighted in conversation, and was visited and

admired by the witty, the elegant, and the learned, very little of his time was passed in study. Solitude was indeed his aversion; and, that he might avoid it as much as possible, Sir Joshua Reynolds and he, in 1764, instituted a club, afterwards known by the title of the *Literary Club*. It consisted of some of the most enlightened men of the age, who met weekly at the Turk's Head in Gerard Street, Soho, at seven, and till a late hour enjoyed

'The feast of reason and the flow of soul.'

In February, 1765, Johnson had the honor of a conversation with the king in the library of Buckingham House; and this year, when he was more than usually oppressed with melancholy, he was fortunately introduced into the family of Mr. Thrale, one of the most eminent brewers in England, and M. P. for Southwark. In October, 1765, he published his edition of Shakspeare, which is chiefly valuable for the preface, where the excellencies and defects of that immortal bard are impartially displayed. In 1769, upon the establishment of the royal academy of painting, sculpture, &c., he was nominated professor of ancient literature; an office merely honorary, and conferred on him at the recommendation of his friend the president. In the variety of subjects on which he had hitherto exercised his pen, he had forborne, since the administration of Sir Robert Walpole, to meddle with the disputes of contending factions; but having seen with indignation the methods which, in the business of Mr. Wilkes, were taken to work upon the populace, he published in 1770 a pamphlet entitled *The False Alarm*; in which he asserts, and labors to prove, by a variety of arguments, that the expulsion of a member of the house of commons is equivalent to exclusion, and that no such calamity as the subversion of the constitution was to be feared from an act warranted by usage. Whatever may be thought of the principles maintained in this publication, it unquestionably contains much wit and argument, expressed in the author's best style of composition; and is known to have been written between eight o'clock on Wednesday night and twelve on Thursday night, when it was read to Mr. Thrale upon his coming from the house of commons. In 1771 he published another political pamphlet, entitled *Thoughts on the late Transactions respecting Falkland's Islands*; in which he attacked Junius.

In 1773 he visited with Mr. Boswell some of the most considerable of the Hebrides, and published an account of his journey in a volume which abounds in extensive philosophical views of society, ingenious sentiments, and lively description; but which offended many persons, by the violent attack which it made on the authenticity of the poems attributed to Ossian. In 1774, parliament being dissolved, he addressed to the electors of Great Britain a pamphlet, entitled *The Patriot*; of which the design was to guard them from imposition, and teach them to distinguish true from false patriotism. In 1775 he published *Taxation no Tyranny*; in answer to the Resolutions and Address of the American Congress. These essays drew upon him nume-

rous attacks, all of which he despised; for though it has been supposed that A Letter addressed to Dr. Samuel Johnson, occasioned by his political publications, gave him great uneasiness, the contrary is manifest, from his having, after the appearance of that letter, collected them into a volume, with the title of Political Tracts by the author of the Rambler. In 1765 Trinity College, Dublin, had created him LL.D. by diploma, and he now received the same honor from the University of Oxford; with which he was highly gratified. In 1777 he was induced, by an extraordinary ease, to exercise that humanity which in him was obedient to every call. Dr. Dodd, then under sentence of death for forgery, procured from him two of the most energetic compositions of the kind ever seen; the one a petition from himself to the king, the other a like address from his wife to the queen. These petitions, however, failed of success. The principal booksellers in London having determined to publish a body of English poetry, Johnson was now prevailed upon to write the lives of the poets, and give a character of the works of each. This his last task he undertook with alacrity, and executed it in a manner worthy his fame. The work was first published in ten small volumes, of which the first four came forth in 1778, and the others in 1781. At last, at the age of seventy-two, and when laboring under a complication of diseases, death deprived him of Mr. Thrale, in whose house he had enjoyed the most comfortable hours of his life; but it abated not in Johnson that care for the interests of those whom his friend had left behind him. On this account his visits to Streatham, Mr. Thrale's villa, were for some time after his death regularly made on Monday and protracted till Saturday, as they had been during his life; but they soon became less and less frequent, upon the prospect of Mrs. Thrale's marriage with Mr. Piozzi, when he studiously avoided the mention of the place or the family. In June 1783 his constitution sustained a shock by a stroke of the palsy, so sudden and violent that it awoke him out of a sound sleep, and rendered him for some time speechless. As usual, his recourse was to piety. He tried to repeat the Lord's Prayer, first in English, then in Latin, and afterwards in Greek; but succeeded only in the last. From this alarming attack he soon recovered, but it left presages of an hydroptic affection; and he was not long afterwards seized with a spasmodic asthma, so violent that it confined him to the house in great pain, while his dropsy increased. He had, however, such an interval of ease as enabled him in the summer of 1784 to visit his friends at Oxford, Litchfield, and Ashbourne. His constant dread of death was so great, that it astonished all who had access to know the piety of his mind. This, however, was the case only while it was at some distance. From the time that he was certain that it was near, his fears were calmed; and he died on the 13th of December, 1784, full of resignation, faith, and hope. Bishop Gleig sums up the character of this great man in the following words:—‘Without claiming for him the highest place among his contemporaries, in any single department of literature,

we may use one of his own expressions, ‘that he brought more mind to every subject, and had a greater variety of knowledge ready for all occasions, than almost any other man.’ Though religious to superstition, he was in every other respect so remarkably incredulous, that Hogarth said, while Johnson firmly believed the Bible, he seemed determined to believe nothing else. The same energy which was displayed in his literary productions was exhibited also in his conversation, which was various, striking, and instructive: like the sage in Rasselas, he spoke, and attention watched his lips; he reasoned, and conviction closed his periods: when he pleased, he could be the greatest sophist that ever contended in the lists of declamation; and perhaps no man ever equalled him in nervous and pointed repartees. But he had a roughness in his manner which subdued the saucy, and terrified the meek; it was only however in his manner; for no man was more loved than Johnson was by those who knew him; and his works will be read with veneration for their author, as long as the language in which they are written shall be understood.’

JOHNSON, in geography, a county of North Carolina, in Newbern district; bounded by those of Franklin, Wayne, Glasgow, and Sampson.

JOHNSONIA, or callicarpa, in botany, a genus of the monogynia order, and tetrandria class of plants. Its characters are these: the flower has an empalemente of one leaf, cut at the brim into four short segments: it has one tubulous petal divided into four parts at the brim, and four slender stamina, which are longer than the petal. In the centre is a roundish germin, which afterwards becomes a smooth globular berry, enclosing four hard, oblong seeds. Linnaeus mentions two species, but Miller reckons only one, a native of South Carolina; the leaves of which were used by Dr. Dale in dropsical cases with advantage.

JOHN'S RIVER, LITTLE (St.), a river of West Florida, which falls into Apalache Bay, ten miles east of the Apalache. It is 200 yards broad, and is said to contain the clearest and purest water of any river in America.

JOHN'S RIVER (St.), a river of North America, which rises in the heart of East Florida, and runs a north course, in a broad navigable stream, which, in different places, spreads into broad lakes, of which Lake George is the chief. The bar at the mouth, which is thirty-one miles and a half north of St. Augustine, is liable to shift.

JOHN'S RIVER (St.), a river of North America, which forms the boundary between Canada and Labrador, and runs into the St. Lawrence, in long. $64^{\circ} 10' W.$, lat. $50^{\circ} 20' N.$

JOHNSTON (Dr. Arthur), was born at Caskieben, near Aberdeen. He studied physic, and travelled to improve himself in that science. He was twice at Rome; but he chiefly resided at Padua, in which University the degree of M. D. was conferred on him in 1610. After leaving Padua, he travelled through the rest of Italy, and over Germany, Denmark, England, and Holland, and at length settled in France, where he met with great applause as a Latin poet. He lived there upwards of twenty years, and did

not return to Scotland till 1632. In 1633 he began his *Psalmorum Davidis Paraphrasis Poetica*; a specimen of which, printed at London, was dedicated to bishop Laud. To perfect the whole, took him four years; and the two first editions complete were published at Aberdeen and London in 1637. In 1641 Dr. Johnston, being at Oxford, was seized with a violent diarrhoea, of which he died in a few days, in the fifty-fourth year of his age. Dr. Johnston was made physician to the king about 1633, when he translated Solomon's Song into Latin elegiac verse, and dedicated it to his majesty. His Psalms were reprinted at Middleburgh, 1642; London, 1657; Cambridge, ——; Amsterdam, 1706; Edinburgh, by William Lauder, 1739; and lastly, on the plan of the Delphini classics in London, 1741, 8vo., at the expense of auditor Benson, who dedicated them to king George II. His translations of the Te Deum, Creed, Decalogue, &c., were subjoined to the Psalms. His other poetical works are his Epigrams; his *Parerga*; and his *Musa Anglicæ*, or commendatory Verses upon persons of rank in church and state at that time.

JOHNSTON (John), a learned divine, born in 1662. He was zealous for the Revolution, and preached a noted sermon at Feversham on the occasion, in 1689, from the words, ‘Remember Lot’s wife;’ wherein he set forth the great danger of looking back, and vindicated the liturgy against Baxter and others. He published The Clergyman’s *Vade Mecum*, and A Collection of Ecclesiastical Laws, as a continuation of it; but, catching the infection spread by Dr. Sacheverel, he, on the accession of George I., to the amazement of all his old friends, entertained unfavorable thoughts of the Protestant succession, and refused to read the usual prayers for the king. Being prosecuted, however, he submitted; and died vicar of Cranbrook in Kent, in 1725. He published also a work on the Holy Eucharist, called *The Unbloody Sacrifice*; and 2 vols. of Discourses on various subjects were printed after his death.

JOHNSTON’S STRAITS, a channel of the Pacific Ocean, branching off from the northern part of the gulf of Georgia, from Point Chatham to the west, between the island of Quadra and Vancouver, and the west coast of North America. It is about sixty miles in length, the breadth being from two to four. Long. 233° to $234^{\circ} 46'$ E., lat. $50^{\circ} 20'$ to $50^{\circ} 35'$ N.

JOHNSTONE or JOHNSON (Charles), an ingenious writer of Ireland, descended from the Johnstons of Annandale, was born in the early part of the last century, and called to the bar. He came over to England, but, being deaf, could only practice as a chamber counsel. His first literary attempt was the celebrated *Chrysalis, or the Adventures of a Guinea*, 2 vols. 12mo., a work which attracted so much attention, that the author was induced to add two other volumes to his work. The secret springs of some intrigues on the continent were said to be unfolded in this publication. His exposure of the orgies of a club of fashionable profligates, held at the seat of a nobleman in Buckinghamshire, produced no small sensation. He wrote also *The Reverie*, or a

Flight to the Paradise of Fools, 1762, 2 vols. 12mo.; *Arsaces, Prince of Beths*, 1774, 2 vols.; *The Pilgrim, or a Picture of Life*, 1775, 2 vols.; and the *History of John Juniper, esq.; alias Juniper Jack*, 1781, 3 vols. In 1782 he went to India, where he first employed himself in writing essays for the Bengal newspapers, and finally obtained a good property. He died at Calcutta about 1800.

JOINSTOWN, a township and village of New York, in Montgomery county. The village is situated on a handsome plain, four miles north of the Mohawk River. It consists of 120 houses, the county buildings, an academy, an Episcopal and Presbyterian church. Population of the township, in 1810, 6225. Forty-two miles northwest of Albany.

JOHORE, a town of Malacca, near the southern extremity of that peninsula. It was founded in 1511 by the inhabitants of Malacca, who fled thither from the Portuguese. In 1603 Johore was also taken by the Portuguese, and rebuilt higher up the river. The country produces tin, gold, pepper, sago, and elephants’ teeth.

JOIGNY, a town of Champagne, in France, in the department of the Yonne, and near that river. It is situated on the slope of a rocky elevation. The river is bordered by a handsome quay; but the town is irregular and ill built. It is surrounded by a thick wall, and has a castle and barracks for cavalry. Also some manufactures of woollen and leather, and a trade in wood; but the culture of the vine is the principal object. Population 5400. Thirty-four miles south-west of Troyes.

JOIN, *v. a.* Fr. *joindre*.

To add one to another in contiguity. The leading idea is union, whether applied to persons or things.

Woe unto them that *join house to house*, that lay field to field. *Isaiah lviii.*

To couple; to combine.

In this faculty, repeating and *joining* together its ideas, the mind has great power. *Locke.*

To unite in league or marriage.

One only daughter heirs my crown and state,
Whom not our oracles, nor heaven, nor fate,
Nor frequent prodigies permit to *join*
With any native of the Ausonian line.

Dryden’s Aeneid.

To dash together; to collide; to encounter: this sense is to be found in the phrase to *join battle*, in which, battle seems not to signify fight, but troops in array, committere exercitus, though it may likewise mean fight, as, committere prælrium.

When they *joined* battle, Israel was smitten.

1 Sam. iv. 2.

They should with resolute minds endure, until they might *join* battle with their enemies. *Knolles.*

To associate.

Go near, and *join* thyself to this chariot.

4 ts.

To unite in one act.

Our best notes are treason to his fame,
Joined with the loud applause of publick voice.

Dryden.

Thy tuneful voice with numbers *join*,
Thy words will more prevail than mine. *Id.*

Unconscious nature, all that he surveys,
Rocks, groves, and streams, must *join* him in their
praise.
Couper. Hope.

To unite in concord.

Be perfectly *joined* together in the same mind.
I Cor.

To act in concert with.

Know your own interest, Sir, where'er you lead,
We jointly vow to *join* no other head.

Dryden's Aurengzebe.

JOIN, *v. n.*

To grow to; to adhere; to be contiguous.

Justus's house *joined* hard to the synagogue. *Acts.*

The grete tour that was so thikke
Which of the castel was the chef doneeon,
(Wher as these knigtes weren in prison,
Of which I tolde, and tellen shal)

Was even *joignant* to the gardin wall.
Chaucer. The Knights Tale.

To close; to clash.

Look you, all you that kiss my lady peace at home,
that our armes *join* not in a hot day.

Shakespeare. Henry IV.

To unite with in marriage, or any other
league.

Should we again break thy commandments, and
join in affinity with the people?
Ezra.

To become confederate.

Ere yet they brought their journey to an end,
A stranger *joined* them, courteous as a friend,

And asked them with a kind engaging air,
What their affliction was, and begged a share.

Couper. Conversation.

Any other may *join* with him that is injured, and
assist him in recovering satisfaction.
Locke.

Yet the avenger stops,
And doubt and discord step 'twixt thine and thee,
And *join* their strength to that which with thee copes.

Byron. Prophecy of Dante.

JOIN'DER, *n.s.* From join. Conjunction; joining. Not used.

A contract of eternal bond of love,
Confirmed by mutual *joinder* of your hands.

Shakespeare.

JOIN'ER, *n.s.* From join. One whose trade
is to make utensils of wood compacted.

The people wherewith you plant ought to be
smiths, carpenters, and *joiners*.
Bacon's Essays.

It is counted good workmanship in a *joiner*, to
bear his hand curiously even.

Moxon's Mechanical Exercises.

JOINERS' COMPANY, in
heraldry, was incorporated in
London in 1572. Their arms
are gules, a chevron argent,
between two pair of compasses above and a sphere in
base or; on a chief of the third,
two roses of the first, and be-
tween them a pale sable, charged with an escalllop
shell of the second.



JOINERY.

JOIN'ERY, *n.s.* From joiner.

Joinery is an art whereby several pieces of wood
are so fitted and joined together by straight lines,
squares, mitres, or any bevel, that they shall seem
one entire piece.
Moxon.

JOINERY, as an art, comprises the various
species of ornamental work which are usually
resorted to in the completion of the labors of the
carpenter. Carpentry and joinery may, there-
fore, very properly be considered separately,
though they are frequently combined in the same
artisan. The first has already been pretty fully
examined under its proper head, and we may
now proceed to enumerate the various branches
of the second art.

All kinds of surfaces are first formed in the
rough, and finally brought to exact forms by
means of tools adapted for the purpose.

Grooving consists in taking away a part of a
rectangular section from a piece of wood, so as to
form a channel of equal breadth throughout,
with three surfaces, one being parallel, and the
other two perpendicular to the surface of the
wood, from which the channel is recessed: the
channel thus formed is called a *groove*.

Rebating consists in taking away a part from
a piece of wood of a rectangular section, so as to
leave only two sides, each of a parallel breadth,
the one side being perpendicular to the surface
of the wood, and the other parallel to it: the
cavity thus formed is called a *rebate*. From this
definition it is manifest, that a rebate can only
be formed by reducing the piece of wood to be

rebated at the angle itself, and may therefore be
looked upon as a half groove.

A *mortise* is a cavity recessed within the
surface of a piece of wood, with four sides perpen-
dicular to that surface, and likewise to each
other; the act of making a mortise is called
mortising.

A *tenon* is a projection formed on the end of
a piece of wood with four plane sides, at right
angles to each other, and to a plane, from which
it projects; and this plane is called the shoulder
of the tenon.

In the following observations, all pieces of
wood whatever are supposed to be rectangular
prisms, and the length in the direction of the
fibres; two of the sides of every mortise to be
perpendicular, and the other two sides parallel
to the fibres; the four sides of every tenon in the
direction of the fibres, unless otherwise stated:
likewise, if two of the surfaces of a piece of
wood be of greater breadth than the other two,
these are called the edges, and those the sides;
and each line of concourse, formed by two adja-
cent sides, is called an *arris*.

Moulding consists in forming the surface of a
piece by curved or plane surfaces, or by both,
in such a manner, that all parallel sections will
be similar figures, that is, their boundaries will
be made all to coincide.

The first thing to be done in joinery is, to
select the stuff or boards, which ought for every
purpose to be well seasoned, and then line it
out; and if the stuff is not already at the size, as

is most frequently the case, it must be ripped out with the ripping-saw, or cross-cut with the hand-saw, or both, as may be required. The next thing is the planing of the stuff, first upon the sides, then the edge squared, and then gauged to a breadth and thickness, should either or both be found necessary.

Two or more pieces of stuff may be fastened together in various ways by pins of wood or by nails, but, in work prepared by the joiner for the use of building, pieces are more frequently joined together by making their surfaces coincide, and then covering them over with a hot tenacious liquid called glue, and afterwards rubbing the surfaces until the glue has been almost rubbed out, and the one piece brought to its situation with respect to the other. The best work is always joined by this method.

When boards are required of greater breadth than common, several boards must be fastened together edge to edge, either by nailing them to pieces extending across the breadth, or glueing them edge to edge, or by joining pieces transversely together with small boards, tongued and grooved into the interstices.

Two pieces of stuff are joined together at right or oblique angles by a mortise and tenon adapted to each other, and fastened together with glue. When a frame consisting of several pieces is required, the mortises and tenons are fitted together, and the joints glued all at one time, then entered to their places, and forced together by means of an instrument called a cramp.

To join any number of planks together, so as to form a board of a determinate breadth, the fibres of each running longitudinal to those of any other, shoot the two edges that are to be joined; turn the sides of the boards towards each other, so that the edges that are shot may be both uppermost; spread these edges over with strong glue of a proper consistence, made very hot; one of the boards being fixed, turn the other upon it, so that the two edges may coincide, and that the faces may be both in the same plane; let these dry for a few hours; then proceed to make another joint; continue to join as many boards or planks in the same manner, till the whole intended breadth be made out. If the boards or planks of which the board is to be composed are very long, the edges that are to be united would require to be warmed before a fire; and, for rubbing and keeping the joints fair to each other, three men would be found necessary, one at each extremity, and one at the middle. Boards glued together with this kind of cement, will stand as long as the substance of the deals or planks composing them, if not exposed to rain or intense heat, provided that the wood has been well-seasoned before hand, and that the grain be free and straight, uninterrupted with few or no knots. When a board which is to be exposed to the weather is to be made of several boards or planks, the cement to be used for uniting them should not be of skin-glue, but of white lead ground up with linseed oil, so thin that the color may be sensibly changed into a whitish cast: this kind of glue will require a much greater time to dry than skin-glue. Boards

to be exposed to the weather, when their thickness will admit, are frequently tongued together; that is, the edges of both boards are grooved to an equal distance from the faces, and to an equal depth; and a slip of wood is made to fit the cavity made in both: this slip should be made to fill the grooves, but ought not to be so tight as to prevent the joint from being rubbed with proper cement.

The first tools used by joiners are *bench-planes*, which generally consist of a jack-plane, for taking away the rough of the saw, and the superfluous wood, only leaving so much as is sufficient to smooth the surface; the trying-plane to smooth or reduce the ridges left by the jack-plane, and to straighten or regulate the surface, whether it be plane or convex; the long plane, when the surface is required to be very straight; and the smoothing-plane in smoothing, as its name implies, and giving the last finish to the work. Besides the bench-planes there are others for forming any kind of prismatic surfaces whatever, as rebating-planes, grooving-planes, and moulding-planes.

The tools employed in boring cylindric holes are, a stock, with bits of various descriptions and sizes; gimlets; and brad-awls of several diameters.

The tools used in paring the wood obliquely, or across the fibres, and for cutting rectangular prismatic cavities, are in general denominated *chisels*: those for paring the wood across the fibres are called firmers, or paring-chisels, and those for cutting rectangular prismatic cavities are called mortise-chisels, the rectangular cavities themselves being called mortises when made to receive a projection of the same form and size, and by this means to fasten two pieces of wood together at any angle. The sides of all chisels, in a direction of their length, are straight, and the side of a chisel which contains the cutting edge at the end is steel. The best paring-chisels are made entirely of cast steel. Chisels for paring concave surfaces are denominated gouges.

Dividing wood, by cutting away a very thin portion of the material of equal thickness throughout, to any required extent, by means of a thin plate of steel, with a toothed edge, is called *sawing*: the instruments used are of several kinds, as the ripping-saw, for dividing boards into separate pieces in a direction of the fibres; the hand-saw, for cross-cutting and sawing thin pieces in a direction of the grain; the pannel-saw, either for cross-cutting or cutting very thin boards longitudinally; the tenon-saw, with a thick iron back, for making an incision of any depth below the surface of the wood, and for cutting pieces entirely through, not exceeding the breadth of that part of the plate without the iron back; likewise a sash-saw, and a dovetail-saw, used much in the same way as the tenon-saw. From the thinness of the plates of these three last saws, it is necessary to stiffen them by a strong piece of metal called the back, which is grooved to receive the upper edge of the plate that is fixed to the back, and which is thereby secured and prevented from buckling. When it is required to divide boards into curved pieces, a very narrow saw without a back, called a

compass-saw, is used, and in cutting a very small hole a saw of a similar description, called a key-hole saw, is employed. All these saws have their plates longer and thinner, and their teeth finer, as they succeed each other in the order here mentioned, excepting the two last, which have thicker plates and coarser teeth than either the sash or dove-tail-saw. The external and internal angles of the teeth of all saws are generally formed at an angle of 60° , and the front edge teeth slope backward in a small degree, but incline to or recline from the straight line drawn from the interior angle perpendicular to the edge in the plane of the plate, as the saw may be employed in ripping or in cross-cutting, or cutting perpendicular to the fibres. The teeth of all saws, except turning and key-hole saws, are bent on contrary sides of the plate, each two teeth succeeding each other, being alike bent on the different sides of the plate; viz. the one as much to the one side as the other is to the other side, and consequently all the teeth on the same side alike bent throughout the length of the plate, for the purpose of clearing the sides of the cut which it makes in the wood.

Of all cutting tools whatever, the saw is most useful to the joiner, as the timber or wood which he employs can be divided into slips or bars of any size, with no more waste of stuff than a slice, the breadth of which is equal to the depth of the piece to be cut through, and the thickness equal to the distance of the teeth between their extreme points on the alternate sides of the saw measured on a line perpendicular to the said sides; whereas, without the use of the saw, cylindrical trees could only be reduced to the intended size by means of the axe; in the use of which there would not only be an immense consumption of stuff, but also much greater labor would be required to straighten it.

Joiners use a small axe, called a *hatchet*, for cutting off the superfluous wood from the edge of a piece of a board, when the waste is not of sufficient consequence to be sawn.

The above are what are commonly denominated edge tools, but there are others required to regulate the forms. All angles whatever are formed by other reversed angles of the same number of degrees as an exterior angle by an interior one, and the contrary. The instrument for trying right angles is called a *square*, and those for trying oblique angles are called *bevels*. The two sides which form the edge of a square are always stationary, but those of bevels are generally moveable one leg upon the other round a joint. In some cases, where a great number of pieces are required to be worked to the same angle, a stationary bevel, called a joint hook, is used.

When it is required to reduce a piece of stuff to a parallel breadth, an instrument called a gauge is used for the purpose. The gauge consists generally of a square piece with a square mortise, through which a bar at right angles thereto is fitted and made to slide. The bar, which is called the stem, has a sharp point, cutter, or tooth, at one extremity, projecting a little from the surface, so that when the side of the gauge, next to the end which has the point, is applied upon the vertical surface of the wood, with the

flat side of the stem which has the tooth upon the horizontal surface, and pushed and drawn alternately by the workman from and towards him, the cutter will make an incision from the surface into the wood, at a parallel distance from the upper edge of the vertical side on the right hand. This line, so drawn, will mark out with precision, and show the superfluous stuff to be taken away.

When a mortise is required to be cut in a piece of wood, a gauge with two teeth is used. The construction of this instrument is the same as the common gauge; but in addition to this instrument, the stem has a longitudinal slider with a tooth projecting from the end of the slider, so that the two teeth may be brought nearer, or to any remote distance from each other, at pleasure; and also to any distance from the face of the head or guide within the reach of the stem.

When wood has been planed, and required to be sawn across the fibres, and as it is necessary to be kept stationary while sawing, in order to prevent the sides or the edges from being bruised, joiners use a flat piece of wood with two projecting knobs on the opposite sides, one at each end, called a side hook. The vertical side of the interior angle of one of the knobs is placed close to the vertical side, and the under side upon the top of the bench; then the wood is pressed against the knob which projects from the upper surface while it is cutting with the saw; but the use of two side hooks is better, as they keep the piece of wood to be sawn more steady.

When it is required to cut a piece of wood to a mitre with one side; that is, to half a right angle, joiners use a trunk of wood with three sides, like a box without ends, or a top, the sides and bottom being parallel pieces, and the sides of equal heights: through each of the opposite sides is cut a kerf in a plane, perpendicular to the bottom, at oblique angles of 45° and 135° , with the planes of the sides; and another kerf is made in the same manner, so as to have its plane at right angles to the former. The trunk thus constructed is called a mitre-box. When the wood is to be cut, the mitre-box is fixed steadily against two side hooks, and the piece, which is always less than the interior breadth of the mitre-box, is laid within, and pressed against the further interior angle of the mitre-box with the side downwards, to which the saw-kerf is intended to be perpendicular, and in this position it is to be cut. The two kerfs in the sides of the mitre-box are requisite, in order to form the acute angle on the right or left hand side of the piece, as may be required.

When it is required to make a piece of wood straight in one direction, joiners use a slip of wood straightened on one edge, from which the slip of wood itself is called a straight-edge. Its use is obvious; by its application it will be seen whether there is a coincidence between the straight-edge and surface.

When it is required to know whether the surface of a piece of wood is in the same plane joiners use two slips of wood straightened each on one edge with the opposite edge parallel, and both pieces of the same breadth between the parallel edges: each piece has therefore two

straight edges. Suppose it were required to know whether a board is twisted or its surface in a plane, the workman lays one of the slips across the one end, and the other across the other end of the board, with one of the straight edges of each upon the surface; then he looks in the longitudinal direction of the board, over the upper edges of the two slips, until his eye and the two upper edges of the slips are in one plane; or otherwise the intersection of the plane, passing through the eye and the upper edge of the nearest slip, intersect the upper edge of the farther slip. If it happen as in the former case, the ends of the wood under the slips are in the same plane; but should it happen as in the latter, they are not. In this last case the surface is said to wind; and when the surface is so reduced that every two lines are in one plane, it is said to be out of winding, which implies its being an entire plane: from the use of these slips they are denominated winding sticks.

We may now direct the attention of our readers to the formation of doors, columns, and stair-cases.

In forming the apertures of *doors*, whether arched or quadrangular, the height should, in general, be about their breadth, or a little more. It was necessity, most probably, that gave birth to this proportion, which habit has confirmed and rendered absolute. The disposition of doors and windows, and assigning to them their proper dimensions, according to the purposes for which they are intended, are not the business of the joiner, but of the architect; for which reason we shall here advert only to the common method of decorating doors and windows, the former of which have an architrave around the sides and top of the aperture, with a regular frieze and cornice upon it. In some cases, the cornice is supported by a console on each side of the door, and sometimes, besides an architrave, the aperture is adorned with columns, pilasters, &c., which support a regular entablature, with a pediment, or with some other termination, either in architecture or sculpture. Front doors, intended to be ornamented with any of the orders, should not be less than three feet six inches wide; the height should be twice the width and one-sixth part more, which might also be the height of the column; the abacus may be then taken out of that dimension, in order to separate the door from the fan light. The windows of the principal floor are generally most enriched. The simplest method of adorning them is with an architrave surrounding the aperture, and crowned with a frieze or cornice. The windows of the ground floor are sometimes left entirely destitute of any ornament; at other times are surrounded with rustics, or a regular architrave having a frieze or cornice. The windows of the second floor have generally an architrave carried entirely round the aperture; and the same method is adopted in adorning attic and mezzanine windows: but the two latter seldom possess either frieze or cornice; while the windows of the second floor are sometimes crowned with both.

With regard to the *hanging* of doors, shutters, or flaps with hinges, care should always be taken

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to place the centre of the hinge in the middle of the joint; but, as in many cases there is a necessity for throwing back a flap to some distance from the joint, the distance between the joint and the intended point must be divided into two equal parts, which point of division will denote the situation of the centre of the hinge. Sometimes doors are required to be hung in such a manner, that, when folded back, they shall be at a certain distance from each other, as is frequently desirable in churches and chapels; this may be easily effected by hinges, with knees projecting to half that distance.

In all elegant rooms, it is necessary to contrive that the doors, when opened, should pass clear over the carpet; now, it is evident, that this cannot be the case, if the jamb on which the door hangs is truly perpendicular, and the bottom of the door is close to the floor, as the bottom of doors commonly are. An inconsiderate observer might recommend a part of the bottom of the door to be cut off, in order to permit its free passage over the carpet, but still, when the door is shut, an open space will intervene between it and the floor, unless, as in some cases, the carpet is continued through the opening to an adjoining passage or room. When this is not the case, the room will be rendered cold and uncomfortable; and the necessity of contriving some method to remedy the defect becomes immediately obvious. This remedy may always be found by hanging the door with rising hinges, constructed for the purpose, with a spiral groove, which, winding round the knuckle as the door opens, gives it a free passage over the carpet. Hinges, however, thus constructed, require that the door should be bevelled at the top next to the ledge or door catch, in proportion to their rise at one quarter of their revolution.

This is an effectual mode of enabling a door to clear the carpet; but a combination of the following modes recommended by Nicholson are less objectionable. Raise the floor under the door, as much as the thickness of the carpet might require. Make the knuckle of the bottom hinge project an eighth of an inch beyond the perpendicular direction of the top hinge,—fix the jamb to which the door might be hung about the eighth of an inch out of the perpendicular; and place a common butt hinge at the top, and one with a projecting knee at the bottom.

The introduction of rising hinges requires a notch to be cut out of the door where the hinged edge and the top edge meet, and, since this cannot be concealed on both sides of the door, this method is considered as defective; besides the hinges are liable to get out of order.

A *gib door* is one which is intended to be concealed in the side of a room, and therefore partakes of the same surface and finish as the wall in which it is inserted. Therefore, the face of a gib door, and the face of the wall from which the aperture is made to receive the gib door, are in the same surface.

Fig. 1, plate I, JOINERY, exhibits the elevation of a gib door, having the same moulding as the base and surbase of the room. A is a section of the base moulding to a large scale, and B that of the surbase to the same scale. A portion of

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the plan of the door and of the surbase, as also a part of the jamb, is shown at fig. 2.

In order to make the most perfect work, the door should be hung with centres, and not with hinges, and the centres should be inserted within the solid of the jamb lining. Let O be the centre of the hinge OD, a portion of the inner edge of the surbase in contact with the door, and CB a portion of the outer edge; let C be some point on the outside of the perpendicular OB opposite the jamb. Join OC, and draw CD perpendicular to OC; then CD will be the plan of the joint, in order that it may be a vertical plane. Though there is no absolute necessity, it is usual to make the distance BC equal to BO. The object of this is, to make the distance OD the least possible, so that the strength of the jamb may not be impaired by cutting away more wood than is necessary to effect the purpose.

Palladio, after observing that 'great care ought to be taken in the placing of *stair-cases*', so 'that they may not obstruct other places, nor be obstructed by them,' says that 'three openings are required in stair-cases; the first is the door through which one goes up to the stair-case, which, the less it is hid to those that enter into the house, so much the more it is to be commended. And it would please one much if it was in a place where, before that one comes to it, the most beautiful part of the house was seen; because it makes the house (although it should be little) seem very large; but, however, let it be manifest, and easily found.'

'The second opening is the windows that are necessary to give light to the steps; they ought to be in the middle, and high, that the light may be spread equally, every where alike.'

'The third is the opening through which one enters into the floor above; this ought to lead us into ample, beautiful, and adorned places.'

Stair-cases ought to be proportioned in width and commodiousness to the dimensions and use of the building in which they may be placed. The height of a step ought not to exceed seven inches, nor in any case should be less than four; but six inches is a general height. The breadth of the steps should not be less than twelve inches, if it can possibly be avoided; nor should they ever be more than eighteen; and, to render the ascent free from the interruption of persons descending, their length should not exceed twelve, nor be less than four, except in common and small buildings, whose area will not admit of a stair-case of more than three feet. That the ascent may be both safe and agreeable, it is requisite also to introduce some convenient aperture for light, which ought to be as nearly opposite to the first entrance to the stairs as the nature of the building will permit. An equal distribution of light to each flight of stairs ought to be particularly regarded; for which reason the apertures or windows are commonly placed at the landings or half spaces; though sometimes the whole is lighted from a dome. Stair-cases are of various kinds; some wind round a newel in the middle, while the risers of the steps are straight, and sometimes curved; others are of a circular plan, but form a well in the centre. The same may be observed of those whose plans are elliptical;

the most common, however, are those whose plans form a square or parallelogram.

The ancients entertained a singular notion, that the number of steps ought to be uneven, in order that, when the right foot was placed on the first stair in ascending, the ascent might terminate with the same foot. This was considered as a favorable omen on most occasions, and they imagined that, when they entered a temple in this way, it produced greater and more sincere devotion.

Palladio, apparently actuated by this superstitious motive, allows the stair-case of a dwelling-house eleven or thirteen steps to each flight. When a stair-case winds round a newel or column, whether its plan be circular or elliptical, the diameter is divided into three parts, two of which are set apart for the steps and one for the column. But in circular or elliptical stair-cases which are open, or form a well in the middle, the diameter is divided into four equal parts; two of which are assigned for the steps, and two for the well or void space in the centre. Modern stair-cases, however, have often a kind of well of a mixed form; straight on each side, and circular at the returns of each flight. The openings of these wells vary in the point of width, but seldom exceed eighteen or twenty inches.

To most stair-cases it is absolutely necessary, both for convenience and ornament, to affix hand-rails; these generally begin from the ground by a twisted scroll, which produces a very good effect.

Balustrades are sometimes of real use in buildings, and at other times they are only ornamental. Such as are intended for use, as when they are employed in stair-cases, before windows, or to enclose terraces, &c., must always be nearly of the same height; never exceeding three feet and a half, nor ever less than three. But those that are principally designed for ornament, as when they finish a building, should be proportioned to the architecture they accompany: and their height ought never to exceed four-fifths of the height of the entablature on which they are placed; nor should it ever be less than two-thirds thereof, without counting the zocholo, or plinth, the height of which must be sufficient to leave the whole balustrade exposed to view.

The best proportion for balustrades is to divide the whole given height into thirteen equal parts; eight of these for the height of the baluster, three for the base, and two for the cornice or rail; or into fourteen (if it be required to make the baluster less), giving eight parts to the baluster, four to the base, and two to the rail. One of these parts may be called a module; and, being divided into nine minutes, may serve to determine the dimensions of the particular members.

In balustrades, the distance between two balusters should not exceed half the diameter of the baluster measured in its thickest part, nor be less than one-third of it.

The breadth of the pedestals, when they are placed on columns or pilasters, is regulated by them; the dye never being made broader than the top of the shaft, nor much narrower; and, when there are neither columns nor pilasters on the front, the dye should not be much lower than

a square, and seldom higher. On stairs, or any other inclined planes, the same proportions are to be observed as on horizontal ones.

A column will next occupy our attention.

To each order of architecture belongs a particular kind of base, and the first operation required is that of glueing up the base.

The shaft of a column should be glued up in eight or more staves, according to its intended dimensions; but care should be always taken to have the joint in the middle of a fillet, and not in a flute, which would impair its strength very much.

Figs. 3 and 4 show a plan of the upper and lower ends, or the horizontal section at top and bottom. If eight pieces are sufficient to form the column, let an octagon be described round the ends, and let lines be drawn from each angle of the octagon to the centre; when the bevel of the edges of the staves will be given for the joints, which must be quite straight from top to bottom, though the staves be narrower at the top, as shown in fig. 3. These staves must be of sufficient thickness, because their outsides have to assume a curvature proportioned to the swell of the column by means of a diminishing rule; next glue the pieces together one after the other as the glue dries; block them well at the corners in the inside, which will greatly strengthen the joints; and proceed in this manner to the last stave; but all the blocks must be glued on and dried, before the last stave can be fastened. Pieces, however, may be glued quite across for the last stave, and fixed to the inside of the two adjoining staves, or they may be fixed by screws to each stave, in which case the under side of the last stave must be planed so as to rub well on the cross pieces.

When the stave is put in, and glued upon the cross pieces, it may be driven tight home, like a wedge, and the whole will be firm and substantial throughout, great care, nevertheless, ought to be taken as to preparing the staves and blocks out of wood thoroughly dry, because, after the lapse of some time, if the wood be moist, the column will be in danger of falling to pieces at the joints. It will be necessary also to make each piece according to the plan, for a trifling error in any one piece will make a very material difference in the column after glueing. When the glue used in combining the column is dry, the angles must be regularly worked off all round; and the column will then have double the number of sides, or cants, bearing a proportionable regularity to each other. Proceed in a similar manner to work off the angles as before, so as to make the sides, or cant of the column, quite regular. Lastly, let a plane be formed, in order to fit the curve of the column at the bottom, or render it rather flatter; then round off all the angles, until the surface of the column is perfectly smooth. One thing to be observed, with respect to the moulds employed in jointing the staves together, is, that they cannot be considered as exactly true when applied in a direction perpendicular to the joint. The most correct mode is that made use of in finding the backing of a hip rafter; but this exactness, nevertheless, is not always attended to, in consequence of the difficulty of

discerning the deviation in some instances. When the column is quite finished, it should be well painted, by way of protection from the effects of the weather.

Sometimes columns are glued up in two halves, in which cases those two halves are glued together, and the blockings are introduced a considerable way by hand; but, if the column be too long, a rod of sufficient length may be used. Both these methods have some inconveniences, which cannot be avoided; by the former method, the last joints cannot be rubbed together from the obstacle presented by the tapering of the stave, but if this be glued quickly it will be pretty sound; by the latter method there will be an uncertainty of the blockings being sound. In all cases, however, care should be taken to place the grain of the blocking piece in the same direction as the grain of the column, so as that they may both expand and shrink alike, when affected by the weather.

Fig. 5 represents the mode practised in glueing up a capital. The parts denoted by B B, &c., are triangular blocks of wood, glued upon the front, in order to complete the angular square: upon them the pieces A, A, A, &c., are glued, and this is considered the best method of glueing up the capital. Another method is, to glue the triangular blocks C C, at the angle of the abacus; then the four sides of the abacus as D, E, F, may be made of one entire length, and mitred at the horns, or they may have a joint in the middle of the abacus, where the rose is placed, as the workman shall think fit: this method will do either for a column or a pilaster.

Fig. 6 exhibits the method of glueing up the base of a column.

The mode of mitring the bottom course together, which must be effected on a perfectly flat board, and by fitting all the joints as close as possible. When the course has been well glued together, and secured on the inside with blocks at the several angles, the top of the course must be planed quite smooth and out of winding; after this, the next course must be glued on, and the joint must be broken in the middle of the under course (as shown by the dotted lines in the plate), by which means as many courses can be glued down as may be required. When the whole is thoroughly dry, the operations of the turner may commence.

A pediment is a triangular cornice, of which one of the sides is horizontal, and the other two inclined, and of equal length, such as fig. 1 plate II., or a pediment is a segment of a circle fig. 2, with a circular and straight cornice.

As no pediment can be conveniently executed without two kinds of cornices, to give each of the cymas such a shape or curve as shall agree in their mitre, we must first describe the level cornice a b c d e, figs. 3 and 4, and through the points a, b, c, d, e, draw lines a g, b h, c i, d k, e l, agreeable to the rake or angle which one of the inclined sides makes with the horizon, or from the centre agreeable to the arc required to form the segment.

Draw f' o' perpendicular to a g, and draw o' p perpendicular to f' o'. From the points a, b, c, d, e, draw lines perpendicular to a q, to meet the line

m: n, and from *o'*, in *o'p*, set off distances equal to the distances from *m*, in the line *mn*, where perpendiculars meet it, and draw perpendiculars from the points in *o'*, and let these perpendiculars intersect the lines *ag*, *bh*, *c i*, &c., in the points *f, o, p, q, r*; then the curve *fopqr* is the section of the inclined moulding. In like manner draw *gs*, perpendicular to *aq*: from *s*, in the line *st*, set off the several distances from *m*, in the line *mn*, and draw lines from the points of division parallel to *sq*, to meet the lines parallel to *ag*, in the points *g, h, i, k, l*; then *ghikl* is the section of a moulding, returning parallel to the moulding of which *abcde* is the section.

Figs. 5 and 6 are described in a similar manner as is evident.

Fig. 7 shows the manner of drawing angle bars for shop fronts, supposing the angle bars to be the same thickness as the intermediate vertical and horizontal bars. These bars being duly placed according to the plan of the windows, *tuv*, through *c* draw *ra*, meeting *rs* in *a*, and the side of the angle bar in *b*: from *c*, with the distance *ba*, describe an arc intersecting *pq* in *d*. Draw *ci, fk*, parallel to *ut*, meeting *rs* in *i, k*, and draw *eg, fh*, parallel to *cd*, meeting *pq* in *g* and *h*. Make *il, km, &c.*, equal to *eg, fh, &c.*, finding a sufficient number of points; in the same manner draw the curves and complete the angle bar as required.

We have hitherto confined our remarks to that part of joinery which is performed at the bench; but by far the most important part remains to be considered. For, however well a piece of work may have been prepared, if it be not properly *fixed*, it cannot fulfil its intended purpose. As in the preceding part, we shall state the general principles that ought to be made the basis of practice, and illustrate those principles by particular examples.

If the part to be fixed consist of boards joined together, but not framed, it should be fixed so that it may shrink, or swell, without splitting. The nature of the work will generally determine how this may be effected. Let us suppose that a plane back of a window is to be fixed. Fig. 8 is a section showing *B* the back of the window, *A* the window sill, *D* the floor, and *C* the skirting. Now let the back be firmly nailed to the window sill *A*, and let a narrow piece *d*, with a groove and cross tongue in its upper edge, be fixed to the bond timbers or plugs in the wall; the tongue being inserted also into a corresponding groove in the lower edge of the back *B*. It is obvious that, the tongue being loose, the back *B* may contract or expand, as a panel in a frame. The dado of room should be fixed in the same manner. In the principal rooms of a house the skirting *C* is usually grooved into the floor *D*, and fixed only to the narrow piece *d*, which is called a ground. By fixing, in this manner, the skirting covers the joint, which would, otherwise, soon be open by the shrinking of the back; and from the skirting being grooved into the floor, but not fastened to it, there cannot be an open joint between the skirting and floor. When it is considered that an open joint in such a situation must become a receptacle for dust,

and a harbour for insects, the importance of adopting this method of fixing skirting will be apparent.

In fixing any board above five or six inches wide, similar precautions are necessary; otherwise it is certain to split when the house becomes inhabited. We may, in general, either fix one edge, and groove the other, so as to leave it at liberty, or fix it in the middle, and leave both edges at liberty.

Sometimes a wide board, or a piece consisting of several boards, may be fixed by means of buttons screwed to the back, which turn into grooves in the framing, bearers, or joists, to which it is to be fixed. If any shrinking takes place, the buttons slide in the grooves. In this manner the landings of stairs are fixed, and it is much the best mode of fixing the top of a table to its frame.

We must not omit to notice an ingenious machine for bending sash bars, &c. AA, plate 2, fig. 9, represents the bed of the machine, which may be a plank suitable on the articles to be bent; *f, f, f, f*, represents bearers screwed to the bed, and likewise screwed down to a work bench, as shown at the section to the right hand; MM represents the heads of the screws; B shows a templet (commonly called a cylinder by workmen), the centre of which is at *d, d*, and is supposed to be employed bending a sash style and bead at the same time, as shown in the section.

Suppose the style intended to be bent to be worked to its proper rabbet and mouldings, and the templet rabbed to receive it and the bead also; then suppose the style to be fastened to the straight part of the templet by means of small cramps, as represented at K K. *n, n, n, n*, represents a piece of iron hoop which is pressed close to the templet by means of the wheel *i, i*, and the screw *gg*; the cylinder is supposed to be in the act of being moved round by means of the lever *cc*, and, when brought far enough round, may be confined by cramps as on the other side.

We may now notice, though it must be but briefly, the best mode of selecting and *seasoning* the materials employed by the joiner. It is well known that wood contracts less in proportion, in diameter than it does in circumference; hence a whole tree always splits in drying. Mr. Knight has shown that, in consequence of this irregular contraction, a board may be cut from a tree, that can scarcely be made, by any means, to retain the same form and position when subjected to various degrees of heat and moisture. From the ash and the beech he cut some thin boards, in different directions relatively to their transverse septa, so that the septa crossed the middle of some of the boards at right angles, and lay nearly parallel with the surfaces of others. Both kinds were placed in a warm room, under perfectly similar circumstances. Those which had been formed by cutting across the transverse septa, as at A, fig. 10, plate 2, soon changed their form very considerably, the one side becoming hollow, and the other round; and in drying they contracted nearly fourteen per cent. in width.

The other kind in which the septa were nearly parallel to the surfaces of the boards, as at B, re-

tained, with very little variation, their primary form, and did not contract in drying more than three and a half per cent. in width.

As Mr. Knight had not tried resinous woods, two specimens were cut from a piece of Memel timber, and, to fully explain the matter, we may conceive the figure to represent the section of a tree, the annual rings being shown by circles. B D represents the manner in which one of the pieces was cut, and A C the other. The board A C contracted 3·75 per cent. in width, and became hollow on the side marked *b*. The board B D retained its original straightness, and contracted only 0·7 per cent. The difference in the quantity of contraction is still greater than in hard woods.

From these experiments the advantages to be obtained, merely by a proper attention in cutting out boards for panelling, &c., will be obvious; and it will also be found that panelling, cut so that the septa are nearly parallel to their faces, will appear of a finer and more even grain, and require less labor to make their surfaces even and smooth.

The results of these experiments are not less interesting to cabinet-makers, particularly in the construction of billiard-tables, card-tables, and indeed every kind of table in use. For such purposes the plank should be cut so as to cross the rings as nearly in the direction B D as possible. We have no doubt that it is the knowledge of this property of wood, that renders the billiard-tables of some makers so far superior to those of others.

In wood that has the larger transverse septa, as the oak, for example, boards cut as B D will be figured, while those cut as A C will be plain.

There is another kind of contraction in wood whilst drying, which causes it to become curved in the direction of its length. In the long stiles of framing we have often observed it; indeed on this account it is difficult to prevent the stile

of a door, hung with centres, from curving, so as to rub against the jamb. A very satisfactory reason has been given by Mr. Knight, which also points out the manner of cutting out wood, so as to be less subject to this defect, which it is most desirable to avoid. The interior layers of wood, being older, are more compact and solid than the exterior layers of the same tree; consequently, in drying, the latter contract more in length than the former. This irregularity of contraction causes the wood to curve, in the direction of its length, and it may be avoided by cutting the wood so that the parts of each piece shall be as nearly of the same age as possible.

Besides the contraction which takes place in drying, wood undergoes a considerable change in bulk with the variations of the atmosphere. In straight-grained woods the change in length is nearly insensible, hence they are sometimes employed for pendulum rods; but the lateral dimensions vary so much that a wide piece of wood will serve as a rude hygrometer. The extent of variation decreases in a few seasons, but it is of some importance to the joiner to be aware, that, even in very old wood, when the surface is removed, the extent of variation is nearly the same as in new wood.

It appears, from Rondelet's experiments, that, in wood of a mean degree of dryness, the extent of contraction and expansion, produced by the usual changes in the state of the atmosphere, was, in fir wood, from $\frac{1}{30}$ to $\frac{1}{5}$ part of its width; and in oak, from $\frac{1}{12}$ to $\frac{1}{4}$ part of its width. Consequently the mean extent of variation in fir is $\frac{1}{18}$, and in oak $\frac{1}{10}$; and at this mean rate, in a fir board about twelve inches and a half wide, the difference in width would be $\frac{1}{10}$ of an inch. This will show the importance of attending to the maxims of construction; for, if a board of that width should be fixed at both edges, it must unavoidably split from one end to the other.

Out of joint. Thrown into confusion and disorder; confused; full of disturbance.

The time is *out of joint*, oh cursed spight!

That ever I was born to set it right. *Shakspeare.*

Joint, adj.

Shared among many.

Entertain no more of it,

Than a *joint* burthen bid upon us all. *Shakspeare.*

United in the same possession: as we say, *joint-heirs* or *coheirs*, *joint-heiresses* or *coheiresses*.

The sun and man did strive,

Joint tenants of the world, who should survive.

Doune.

Combined; acting together in consort.

On your *joint* vigour new

My hold of this new kingdom all depends. *Milton.*

Joint, v. a. From the noun.

To form in articulations.

The fingers are *jointed* together for motion, and furnished with several muscles. *Ray on the Creation.*

To form many parts into one.

Against the steed he threw

His forceful spear, which, hissing as it flew,
Pierced through the yielding planks of *jointed* wood.

Dreuden.

JOINT, n. s. Lat. *junctura*; French *jointure*.

Articulation of limbs; juncture of moveable bones in animal bodies.

Dropsies and asthmas, and *joint* racking rheums. *Milton.*

I felt the same pain in the same *joint*. *Temple.*

Hinge; junctures which admit motion of the parts.

The coach, the cover whic^e cof was made with such *joints* that as they might c^e avoid the weather, pull it up close when they listed; so when they would, they might remain as discovered and open-sighted as on horseback. *Sidney.*

In joinery; Fr. *jointe*.

Straight line, sin joiners' language, is called a *joint*; that is, two pieces of wood are shot, that is, planed.

Milton.

A knot or commissure in a plant.

One of the limbs of an animal cut up by the butcher.

In bringing a *joint* of meat, it falls out of your hand. *Swift.*

Out of joint. Luxated; slipped from the socket, or correspondent part where it naturally moves.

My head and whole body was sore hurt, and also one of my arms and legs put out of *joint*. *Herbert.*

To join together in confederacy. Not used.

The times

Made friends of them, jointing their force 'gainst
Cæsar. *Shakspeare.*

To divide a joint; to cut or quarter into joints.

He joints the neck; and with a stroke so strong
The helm flies off; and bears the head along. *Dryden.*

The JOINTS of the human body are called by anatomists articulations. See ANATOMY. The suppleness to which the joints may be brought by long practice from infancy is very surprising. One of the most wonderful instances was a person of the name of Clark, and famous for it in London, where he was commonly known by the name of Clark the posture-master. This man, by long practice, distorted many of the bones, of which nobody before had ever thought it possible to alter the position. He had such an absolute command of his muscles and joints, that he could almost disjoint his whole body; so that he once imposed on the famous Muggles by his distortions, in such a manner, that he refused to undertake his cure: but, to the amazement of the physician, no sooner had he given over his patient, than he saw him restore himself to the figure and condition of a proper man, with no distortion about him.

JOINTED, *adj.* From joint. Full of joints, knots, or commissures.

Three cubits high

The jointed herbage shoots. *Phillips.*

JOINTER, *n.s.* From joint. A sort of plane.

The jointer is somewhat longer than the foreplane, and hath its sole perfectly straight: its office is to follow the fore-plane, and shoot an edge perfectly straight, when a joint is to be shot. *Moxon.*

JOINTLY, *adv.* From joint.

Together; not separately.

I began a combat first with him particularly, and after his death with the others jointly. *Sidney.*

Because all that are of the church cannot jointly and equally work; the first thing in polity required is a difference of persons in the church. *Hooker.*

In a state of union or co-operation.

His name a great example stands, to shew
How strangely high endeavours may be blest,
Where piety and valor jointly go. *Dryden.*

JOINTRESS, *n.s.* From jointure. One who holds any thing in jointure.

Our queen,

The imperial jointress of this warlike state,
We've taken now to wife. *Shakspeare. Hamlet.*

JOINTSTOOL, *n.s.* Joint and stool. A stool made not merely by insertion of the feet, but by inserting one part in another.

He rides the wild mare with the boys, and jumps upon jointstools, and wears his boot very smooth like unto the sign of the leg. *Shakspeare.*

Could that be eternal which they had seen a rude trunk, and perhaps the other piece of it a jointstool? *South.*

JOINTURE, *n.s.* Fr. *jointure*. Estate settled on a wife to be enjoyed after her husband's decease

The jointure that your king must make,
With her dowry shall be counterpoised.

Shakspeare.

The old countess of Desmond, who lived in 1589, and many years since, was married in Edward the Fourth's time, and held her jointure from all the earls of Desmond since then.

Raleigh's History of the World.

There's a civil question used of late,
Where lies my jointure, where your own estate?

Dryden.

JOINTURE. See DOWER. To enjoy her jointure, the widow must have been the wife of the party at his decease; not divorced a vinculo matrimonii: nor, if she has eloped from her husband, and lived with an adulterer, shall she be entitled to dower, unless her husband be voluntarily reconciled to her. The widows of traitors are also barred of their dower by 5 and 6 Edw. VI. cap. 11, but not the widows of felons. An alien cannot be endowed, unless she be queen consort. If a woman levies a fine with her husband, or if a common recovery be had with the husband and wife of the husband's lands, she is barred of her dower. A widow, clear of these impediments, is by law entitled to be endowed of all lands and tenements, of which her husband was seized in fee-simple or fee-tail at any time during the coverture; and of which any issue she might have had might by possibility have been heir.

JOINVILLE (John Sire de), an eminent French statesman of the thirteenth century, who was seneschal, or high steward of Champagne, and one of the principal lords of the court of Louis IX. He attended that monarch in all his expeditions; and all matters of justice in the palace were referred to his decision. He wrote the History of St. Louis, in French, which is a very curious and interesting piece; and died about 1318. The best edition of this work is that of Du Cange, in folio, with notes.

JOINVILLE, an ancient town of France, in the department of Upper Marne, and late province of Champagne, with a large magnificent castle, situated on the Marne, fifteen miles south-east of St. Dizier, 125 of Paris, and twenty-five south-west of Bar le Due.

JOINUS, or JAINS as they are sometimes called, a sect or race of Hindoos, found in considerable numbers in the southern peninsula of India. They are dissenters from the established faith of Brahminism, deny the authority of the Vedas, and all the grand objects of Hindoo veneration. They have adopted opinions concerning the origin of the world, which seem to partake of the character of atheism. The material world, as well as the minds of all men and animals, are by them held to be eternal, and they refuse to acknowledge any thing which is not, or has not been, the object of the senses. Upon this principle they deny the existence of any beings superior to man, and have no objects of worship except men who have raised themselves to the rank of divinities. They, however, set no bounds to the perfection which the human soul may arrive at.

They have three ranks of ascetics, or Yatis. The first, called Anuvrata, is attained by him who forsakes his family, entirely cuts off his

hair, holds always in his hand a bundle of peacock's feathers, and an earthen pot, and wears clothes of a tawny color. The second rank, Mahavrata, requires that all dress should be abandoned, except a mere rag to cover nakedness, and that the hair should be pulled out by the roots. He who aspires to attain the third degree, or Nirvana, throws aside even rags, remains entirely naked, and eats nothing but rice once in two days. He is held in nearly equal veneration with the priests and rajas, whose images are worshipped in the temples.

At Bilicull, or Belligola, is the residence of their high priest, and a gigantic image of Gommat Iswara Swami, one of their chiefs, the foot of which is nine feet in length, so that the height of the entire statue cannot be less than fifty-four feet: there is a similar one at Kureul, near Mangalore. Samana and Gaudina, the main objects of Boodh veneration, are also enumerated by the Jains among the earliest of their priests. On the other hand they differ from the Boodhists in being divided into four castes. The Jains observe similar penances with other Hindoos, only carrying them to a greater extreme. They are also scrupulous to a still greater degree as to causing the death of any living thing. To guard against this the strict Jains do not eat after sunset; they have always a small broom to sweep the ground before them, and never drink water unless strained through a cloth. Like the other Hindoos, they consider it unlawful for the widow to marry again; but discourage the practice of sacrificing her on the body of the husband. They have a system of their own with regard to history, chronology, and physics, still more absurd than that of the Vedas.

JOIST, n.s. From Fr. *joindre*. The secondary beam of a floor.

Some wood is not good to use for beams or *joists*, because of the brittleness. *Mortimer's Husbandry*.

The kettle to the top was hoist,

And there stood fastened to a *joist*. *Swift.*

JOIST, v.a. From the noun. To fit in the smaller beams of a flooring.

JOKE, n.s. & v.n. Lat. *jocus*. A jest;

JOKER, n.s. something not serious: jest or be merry: a jester; a merry fellow.

Thou madest thy first appearance in the world like a dry *joker*, buffoon, or jack pudding. *Dennis.*

Link towns to towns with avenues of oak

Inclose whole down in walls, 'tis all a *joke*!

!exorable death shall level all. *Pope.*

Why should publick mockery in print, or a merry joke upon a stage, be a better test of truth than publick persecutions? *Watts.*

There's little talking, and no wit;

It is time to *joke*. *Couper. Yearly Distress.*

JOKTAN, the son of Heber, brother of Peleg, and father of thirteen sons (Gen. x. 25; 1 Chron. i. 19), the progenitors of thirteen nations or tribes of Arabs; who inhabited Arabia Felix, from Mount Sephar, in the south-east of Arabia, to Meshna, or Mecca, on the east of the Red Sea. See PELEG.

IOLAIA, a festival at Thebes, called also Heracleia. It was instituted in honor of Hercules and his friend Iolas, who assisted him in conquering the hydra. It continued during several days, on the first of which were offered

solemn sacrifices. The next day horse races and athletic exercises were exhibited. The following day was set apart for wrestling, the victors were crowned with garlands of myrtle, generally used at funeral solemnities. They were sometimes rewarded with tripods of brass. The place where the exercises were exhibited was called Iolaion; where there were to be seen the monument of Amphitryon, and the cenotaph of Iolas, who was buried in Sardinia. These monuments were strewed with garlands and flowers on the day of the festival.

IOLAS, or **IOLAE**, in fabulous history, a son of Iphiclus, king of Thessaly, who assisted Hercules in conquering the hydra, and burnt with a hot iron the wound where the heads had been cut off, to prevent the growth of others. He was restored to his youth and vigor by Hebe, at the request of his friend Hercules. Some time afterwards Iolas assisted the Heraclidae against Eurystheus, and killed the tyrant with his own hand. Plutarch says, Iolas had a monument in Boeotia and Phocis, where lovers used to bind themselves by solemn oaths of fidelity, considering the place as sacred to love and friendship. According to Diodorus and Pausanias, Iolas died, and was buried in Sardinia, whither he went to make a settlement at the head of the sons of Hercules by the fifty daughters of Thessalus.

JOLE, n.s.	Fr. <i>gueule, joli</i> ; Lat.
JOLI, v.a.	<i>jorialis</i> . Jole, the face or cheek. Joll, to beat the head against any thing.
JOL'LILY, adv.	Jolly, gay; merry; plump
JOL'LIMENT, n.s.	as in high health: noisy
JOL'LINES, n.s.	mirth and merriment is called jollity or jolliment. The definition of these words is somewhat doubtful.

This Phelus, which that thought upon no guile, Discived was for all his *joliter*.

Chaucer. The Manciple's Tale.

Most like Aleyon seeming at a glance;
Aleyon he, the *jollie* shepleard swaine,
That wont full merrile to pipe and daunce,
And fill with pleasance every wood and plaine.

Spenser. Daphnidea.

Upon our way to which we weren bent
We chaunst to come foreby a covert glade
Within a wood, where as a ladie gent
Sat with a knyght in joyous *jolliment*.

Id. Faerie Queene.

With joyance bring her, and with *jollity*.
Spenser.

There shall these pairs of faithful lovers be
Wedded, with Theseus, all in *jollity*.

Shakspear.

Follow ! nay, I'll go with thee cheek by *jole*. *Id.*
Howsoe'er their hearts are severed in religion,
their heads are both one: they may *joll horns* together.

Id.

Like a *jolly* troop of huntsmen, come
Our lusty English. *Id. King John.*

All my griefs to this are *jolly*,

Nought so sad as Melancholy. *Burton.*

The brazen throat of war had ceased to roar ;
All now was turned to *jollity* and game,

To luxury and riot, feast and dance. *Milton.*

O nightingale !

Thou with fresh hope the lover's heart dost fill,
While the *jolly* hours lead on propitious May.

Id.

He with a proud *jollity* commanded him to leave
that quarrel only for him, who was only worthy to
enter into it.

Sidney.

Your wan complexion, and your thin *joles*, *father*.

Dryden.

This gentle knight, inspired by *jolly* May,
Forsook his easy couch at early day.

Id.

The goodly empress, *jollily* inclined,
Is to the welcome bearer wondrous kind.

Id. Perseus.

The tortoises envied the easiness of the frogs, 'till
they saw them *jolled* to pieces and devoured for want
of a buckler.

L'Estrange.

He catches at an apple of Sodom, which though it
may entertain his eye with a florid, *jolly* white and
red, yet, upon the touch, it shall fill his hand *only*
with stench and foulness.

South.

Good men are never so surprised as in the midst
of their *jollities*, nor so fatally overtaken and caught
as when the table is made the snare.

Id.

Crown we the goblet then, and call on Bacchus,
Bacchus! the *jolly* god of laughing pleasures.

Rowe's Ulysses.

My heart was filled with melancholy to see sever-
al dropping in the midst of mirth and *jollity*.

Addison's Spectator.

A shepherd now along the plain he roves,
And with his *jolly* pipe delights the groves.

Prior.

Red-speckled trout, the salmon's silver *jole*,
The jointed lobster, and unscaly *soale*.

Gay's Tricia.

A salmon's belly, Helluo, was thy fate:
The doctor called, declares all help too late:
Mercy! cries Helluo, mercy on my soul!
Is there no hope! alas! then bring the *jowl*.

Pope.

JOLI, or JOLY (Claudius), was born at Paris
in 1607. He applied first to the law, but after-
wards entered into orders, and in 1631 obtained
a canonry in the cathedral of Notre Dame at
Paris. His diplomatic talents attracting the
attention of the duke of Longueville, the French
plenipotentiary for negotiating a general peace,
he took him with him to Munster, where he
proved a good assistant. On his return, in 1671,
he was made precentor and official of Paris. He
wrote many works, particularly Maxims for the
Education of a Prince; which, giving offence to
the despotic court of France, was burnt by the
hangman in 1665. He died in 1700, aged
ninety-three.

JOLT (Guy), king's counsellor to the Chatelet,
and syndic of the revenues of the Hotel de Ville at
Paris, attached himself for a long time to
cardinal de Retz, in the capacity of secretary.
Besides other tracts, he wrote Memoirs from
1648 to 1665, including those of Cardinal de
Retz; a translation of which into English was
published in 1755.

JOLT, v. a., v. n. & n. s. } Fr. *joute*, or pos-
JOLT'HEAD, } sibly from *jostle*, a
frequentative of joust. To shake as a carriage:
jolt, any shock or violent agitation; jolthead, a
great head; a dolt; a blockhead.

Fie on thee, *jolthead*, thou can't not read!

Shakspeare.

Every little unevenness of the ground will cause
such a *jolting* of the chariot as to hinder the motion
of its sails.

Wilkins.

Had man been a dwarf, he had scarce been a reasonable creature; for he must then have either had a *jolthead*, and so there would not have been body and blood enough to supply his brain with spirits; or he must have had a small head, and so there would not have been brain enough for his business.

Grew.

The symptoms are, bloody water upon a sudden *jolt* or violent motion.

Arbutinot on Diet.

The first *jolt* had like to have shaken me out; but afterwards the motion was easy.

Swift.

ION, in fabulous history, a son of Xuthus and Creusa, daughter of Erechtheus, who married Helice, the daughter of Selinus, king of Egiale. He succeeded to the throne of his father-in-law; and built a city, which he called Helice after his wife. His subjects from him received the name of Ionians, and the country that of Ionia. See ICENIA.

ION, a tragic poet of Chios, who flourished about the eighty-second Olympiad. His tragedies were represented at Athens, where they met with universal applause. He is greatly commended by Aristophanes and Athenaeus, &c.

IONA, JONA, or IOLMKILL, one of the Hebrides. See IOLMKILL. The east side of Iona is mostly flat; the middle rises into small hills; and the west side is very rude and rocky; the whole forming a singular mixture of rocky and fertile ground. There is in the island only one town or village, consisting of about sixty houses. Near it is the Bay of Martyrs, so named from those slain by the Danes. Beyond the town are ruins of the nunnery of Austin canonesses, dedicated to St. Oran, and said to have been founded by St. Columba: the church was fifty-eight feet by twenty, and the east roof is entire. On the floor is the tomb of the last prioress, with her figure praying to the Virgin Mary, and this inscription on the ledge:—Hic jacet dominica Anna Donaldi Terleti filia, quondam priorissa de Jona, qua obiit an' M.D.XI. ojus animam Altissimo commendamus. A broad paved way leads hence to the cathedral; and on this way is a large handsome cross called Macleane's, the only one that remains of 360, which were demolished at the Reformation. Reilig Ouran, or the burying place of Oran, is the large enclosure where the kings of Scotland, Ireland, and of the isles, and their descendants, were buried in three several chapels. The dean of the isles, who travelled over them in 1549, says, that in his time, on one of these chapels (or 'tombes of stain, fornit like little chapels with ane braid gray marble or quhin stain on the gavil of ilk ane of the tombe'), containing the remains of forty-eight Scotch monarchs, from Fergus II. to Macbeth, was inscribed, Tumulus regum Scotiae; the next was inscribed, Tumulus regum Hiberniarum, and contained four Irish monarchs; and the third, Tumulus regum Norwegie, contained eight Norwegian viceroys of the Hebrides, while they were subject to the crown of Norway. Bocce says, that Fergus founded this abbey for the burial place of his successors. Here also stands the chapel of St. Oran, the first building begun by Columba, and Oran's red grave-stone is near the door. In this chapel are tombs of several chiefs, &c. A little north of this enclosure stands the cathedral, built in form

of a cross, 115 feet long by twenty-three, the transept seventy feet: the pillars of the choir have their capitals charged with sculpture and other histories. This church is ascribed to Maldwin in the seventh century; but the present structure is far too magnificent for that age. Most of the walls are built of red granite from the Nun's Island in the Sound. Two parallel walls of a covered way about twelve feet high, and ten wide, reach from the south-east corner to the sea. In the church-yard is a fine cross of a single piece of red granite, fourteen feet high, twenty-two broad, and ten inches thick. The monastery is behind the chapel; of which only a piece of the cloister remains, and some sacred black stones in a corner, on which contracts and alliances were made, and oaths sworn. In former times, this island was the place where the archives of Scotland and many valuable old MSS. were kept. Most of these are supposed to have been destroyed at the Reformation; but many, it is said, were carried to the Scotch college at Douay in France. This once illustrious seat of learning and piety has now no school for education, no temple for worship, no instructor in religion, except when visited once a quarter by the parish minister of Kilfinichen.

JONAH, Heb. נֹחַ, i.e. a dove, the son of Amittai, one of the twelve minor prophets, and author of the canonical book of the Old Testament bearing his name; in which are recorded, his mission to the Ninevites, his foolish attempt to fly from the presence of the Almighty, his punishment, and miraculous deliverance from the belly of the fish, with his prophecy, discontent, and final reproof afterwards. Some of the rabbies suppose Jonah to have been the son of the widow of Sarepta, restored to life by Elijah; others the son of the Shunammite, restored by Elisha; but the chronology renders at least the first of these opinions improbable, as he prophesied under Joash king of Israel, about A. A. C. 771; and perhaps lived to see his prophecy of relief to the Israelites (2 Kings xiv. 25) fulfilled by Jeroboam II. Alstedius says he prophesied about A. M. 3124; about the time of Sardanapalus, the last king of Assyria, who perished with his capital Nineveh, about forty years, or forty prophetic days, after Jonah had foretold its destruction, and which the prophet himself supposed to mean forty natural days.

JONAS ARNAGRIMUS, a learned Icelander, who acquired great reputation by his skill in the sciences, and particularly in astronomy. He was coadjutor to Gundebran de Thorlac, bishop of Hola in Iceland. He refused that bishopric after the death of Gundebran; and died in 1649. He wrote several works, the principal of which are, *Idea verae Magistratus*, and the *History and Description of Iceland*.

JONATHAN MACCABEUS, brother of Judas, a renowned general of the Jews. He forced Bacchides, the Syrian general, who made war with the Jews, to accept a peace; conquered Demetrius Soter, and afterwards Apollonius, that prince's general; but being ensnared by Tryphon, was put to death 144 B.C. See JEWS.

JONES (Inigo), a celebrated English architect, the son of a cloth-worker of London, born in 1572. He was at first put apprentice to a joiner; but early distinguished himself by his inclination to drawing and landscape painting. This recommended him to the favor of William, earl of Pembroke, who sent him abroad with a handsome allowance to perfect himself in that art. He was, however, no sooner at Rome, than he found himself in his proper sphere; he felt that nature had not formed him to decorate cabinets, but to design palaces. He laid aside the pencil, and devoted himself entirely to the study of architecture. He soon acquired fame, and, from his reputation at Venice, Christian IV. invited him to Denmark, and appointed him his architect. James I. met him at Copenhagen, and his queen took him, as her architect, to Scotland. He served prince Henry in the same capacity, and the place of surveyor-general of the works was granted to him in reversion. On the death of that prince Jones travelled once more into Italy, in order to perfect his taste. The surveyor's place became vacant, and he returned to England, but with great disinterestedness gave up the profits of his office, which he found extremely in debt; and prevailed upon the comptroller and paymaster to imitate his example, till the whole arrears were cleared off. In 1620 he was appointed one of the commissioners for repairing St. Paul's; but this was not commenced till 1633, when Laud, then bishop of London, laid the first stone, and Inigo the fourth. The Banqueting House, according to Nicholas Stone, was begun in 1619, and finished in two years, a small part of the pile designed for the palace of our kings; but so complete in itself, that it stands a model of the most pure and beautiful taste. Several plates of the intended palace at Whitehall have been given; but Mr. Walpole thinks from no finished design. In 1623 he was employed at Somerset House, where a chapel was fitted up for the infant, the intended bride of the prince. On the accession of Charles I. Jones was continued in his post. His fee as surveyor was 8*s. 4d.* a day, with an allowance of £46 a year for house-rent, besides a clerk and incidental expenses. During the prosperous state of the king's affairs the pleasures of the court were carried on with much taste and magnificence. Lord Burlington had a folio of the designs for these solemnities, by Inigo's own hand, consisting of habits, masks, scenes, &c. The works of Inigo Jones are not scarce; Surgeon's Hall is one of his best works. One of the most beautiful of his works is the queen's house at Greenwich. Inigo early shared the misfortunes of his royal master. He was not only a favorite but a Roman Catholic: in 1646 he paid £544 for his delinquency and sequestration. Grief, misfortunes, and age, put an end to Jones's life at Somerset-house, July 21st, 1651. Several of his designs have been published. He left in MS. some curious notes on Palladio's architecture, which are inserted in an edition published in 1714.

JONES (Richards), a Welsh author of the seventeenth century, who wrote in his native language a curious work, entitled *Gemina Cambriorum*, containing all the books and chapters of

the Bible. He was matriculated at Jesus College, Oxforde, in 1621, and died in Ireland.

JONES (William), F. R. S., an eminent mathematician, born in Anglesea in 1675. He taught mathematics in London, and was intimate with Newton. He wrote *A Compendium of Navigation*, 8vo. 1702; *Synopsis Matheos*, 8vo. 1706; *Analysis per Quantitatem Series, &c.* He died rich in 1749.

JONES (Rev. William), a modern divine of the church of England, was born at Lowick in Northamptonshire, July 30th, 1726, and educated at the Charter House. Hence he removed to University College, Oxford, where he contracted a friendship with Mr. Horne, afterwards bishop of Norwich. He became, on leaving the university, curate of Finedon, then of Wadenhoe, Northamptonshire, where he wrote his Catholic doctrine of the Trinity. In 1762 he published *An Essay on the First Principles of Natural Philosophy*, which much pleased lord Bute; and, in 1764, the archbishop of Canterbury gave him the vicarage of Bethersden, in Kent, to which was afterwards added the rectory of Pluckley. He next obtained the perpetual curacy of Nayland, in Suffolk; soon after which he exchanged Pluckley for Paston, in Northamptonshire. On the breaking out of the French revolution, Mr. Jones printed *A Letter from Thomas Bull to his brother John*, which had considerable effect. He was also concerned in establishing the British Critic; and published *The Scholar armed against the Errors of the Times*. On the death of his friend, bishop Horne, he paid an affectionate tribute to his memory in an account of his life. In 1793 archbishop Cornwallis presented him to the sinecure rectory of Hollingbourne, Kent, which he did not long enjoy; for the loss of his wife was followed by a paralytic stroke, of which he died February 6th, 1800. His works have been published in 12 vols. 8vo.

JONES (Paul), a naval officer in the service of the United States of America, during the war of independence. He was born in 1736 at Selkirk, in Scotland, and in 1775 obtained a commission from the congress, on which he sailed in a squadron commanded by commodore Hopkins, destined against New York. Here he obtained the rank of captain, and was appointed to the command of a frigate of thirty-six guns. In 1777 he made a descent at Whitehaven, where he destroyed the shipping in the harbour; and afterwards, landing in Scotland, attacked the mansion of lord Selkirk, and carried off the plate and furniture. It is said, however, that he afterwards restored the property to his lordship, whose person was the object of this attack. After taking the Drake sloop of war, off Carrickfergus, he sailed for Brest, and, obtaining a reinforcement of three ships, scoured the English seas. Near Flamborough Head he fell in with the Baltic fleet, convoyed by the Serapis frigate and the Countess of Scarborough, when a severe action took place, in which he was victorious, and captured the Serapis. Arriving at L'Orient in February 1780, he was invited to Paris, and presented, by Louis XVI. with a valuable sword. He returned to America in 1781, when the congress voted him a medal of gold, and ap-

pointed him to the command of a seventy-four. He afterwards served under d'Estaing against Jamaica, and in 1792 offered his services to the French government, but they were declined. He died at Paris in July 1792.

JONES (Griffith), a miscellaneous writer, was born in 1726, and was a coadjutor with Dr. Johnson for some years in the Literary Magazine; and with Smollett and Goldsmith in the British. He also translated and published anonymous works from the French, and was the author of several publications for the use of children, published by Mr. Newbury. He died in 1786.

JONES (Sir William), the son of Wm. Jones, F. R. S., was born September 28th, 1746, and educated at Harrow, under the celebrated Dr. Sumner, who early observed his superior abilities. He was thence removed to University College, Oxford, where the rapidity of his literary acquisitions excited general admiration; while his generous disposition and irreproachable morals procured him universal esteem. In 1769 he made a tour through France, and resided some time at Nice, where he employed himself in investigating the influence of the various forms of government on mankind. His first publication was a translation into French of a Persian MS., entitled *The history of Nadir Shah*, known by the name of Thamas Kouli Khan, Emperor of Persia. In 1771 he met with an additional disappointment by the death of his friend and preceptor, Dr. Sumner, upon whom he wrote an elegant Latin elegy. This year he published *Dissertation sur la Literatur Orientale*, 8vo. A Grammar of the Persian Language, in 4to., and *Lettre à M. A du P——, dans laquelle est compris l'Examen de sa Traduction des Livres attribués à Zoroastre*, 8vo.; containing a spirited vindication of the University of Oxford, from the scurrilous reproaches of the translator of Zoroaster's supposed works. In 1772 he published Poems, chiefly translated from the Asiatic languages; with Two Essays subjoined on the Eastern Poetry, and on the Imitative Arts. In 1773 he took the degree of M. A., and published an English translation of his first work, the History of Nadir Shah, with an introduction, containing A Description of Asia, according to the Oriental Geographers. A Short History of Persia, from the Earliest Times to the present; and an Appendix containing an Essay on Asiatic Poetry, and the History of the Persian Language, &c., 8vo. In 1774 he published *Poësies Asia-ticae Commentariorum, Libri Sex, cum Appendix, &c.*, 8vo. From 1773 he pursued the study of the law, and, being called to the bar about 1779, was appointed a commissioner of bankrupts by lord Bathurst. In 1779 he published the Speeches of Isaeus in causes concerning the Law of Succession to Property at Athens; with a preparatory discourse, notes, and a commentary; dedicated to lord Bathurst, 4to. The disgraceful riots this year in London led him to publish *An Enquiry concerning the Legal Mode of Suppressing Riots, with a Constitutional Plan of Future Defence*, 8vo.; and in 1781 *An Essay on the Law of Bailments*; a masterly treatise.

About this time Mr. Jones became a zealous member of the Constitutional Society, as he did

not approve of the measures then carrying on by the ministry. In 1782 he published The Mahomedan Law of Succession to the Property of Intestates, in Arabic, with a Verbal Translation and Explanatory Notes, 4to. On the 4th March 1783 he was appointed judge of the Supreme Court of Bengal, and was knighted on the 20th. On the 8th of April he married Miss Shipley, eldest daughter of the bishop of St. Asaph, and soon after embarked for India; but previously published the Moallakat, or Seven Arabian Poems, which were suspended on the temple at Mecca, with a translation and arguments, 4to. He left with his brother-in-law, the dean of St. Asaph, a small tract in MS., entitled The Principles of Government, in a Dialogue between a Scholar and a Peasant; which being afterwards published by the dean, and widely circulated by the society for constitutional information, the dean was prosecuted for a libel, and found guilty. Sir William, during his voyage, formed the plan of the Asiatic Society, afterwards established at Calcutta, of which he became the active president, and of whose transactions several volumes have since been published, replete with much useful information. His conduct as a judge was most exemplary, and, while his literary researches continued indefatigable, his integrity remained unimpeachable. After residing fifteen years in India, he was preparing to return to his native country, when he died April 27th 1794, in the forty-eighth year of his age. ‘It is to the shame of scepticism,’ says one of his biographers, ‘to the encouragement of hope, and to the honor of genius, that this great man was a sincere believer in the doctrines of Christianity, and that he was found dead in his closet, in the attitude of addressing his prayer to God.’ Sir John Shore, bart., now lord Teignmouth, delivered an elegant funeral oration at a meeting of the Asiatic Society on Sir William. ‘His capacity for the acquisition of languages,’ said he, ‘has never been excelled. In Greek and Roman literature his early proficiency was the subject of admiration.—The French, the Spanish, and Italian, he spoke and wrote with fluency and precision, and the German and Portuguese were familiar to him. At an early period of life his application to oriental literature commenced. He studied the Hebrew with ease and success; and many of the most learned Asiatics avow, that his knowledge of Arabic and Persian was as accurate and extensive as their own. He was also conversant in the Turkish idiom, and the Chinese had ever attracted his notice so far as to learn the radical characters of that language. It was to be expected after his arrival in India, that he would make himself master of the Sauserit; and the most enlightened professors of the doctrines of Brahma confessing that his knowledge of that sacred dialect was most critically correct and profound, could not suppress their tears for his loss, nor find terms to express their admiration at the wonderful progress he had made in their sciences. But Sir William was too discerning to consider language in any other light than as the key of science. He was led to study the works of Menu, reputed by the Hindoos the oldest and holiest of legislators;

and finding them to comprise a system of laws, so comprehensive and minutely exact, that it might be considered as the Institutes of Hindu Law, he presented a translation of them to the government of Bengal. During the same period he gave the public an English version of the Sirajiyah, or Mahommedan Law of Inheritance, with a commentary. The latter was published at his own expense, and sold for the benefit of insolvent debtors; as well as a former work on the same subject in London.

The following is an Epitaph which he wrote for himself while in Asia:—

Here was deposited

Here was deposited
the mortal part of a man
who feared God but not Death.

and maintained independence
but sought not riches

who thought
none below him but the base and unjust,
none above him but the wise and virtuous;

none above him but the wise and virtuous; who loved his parents, kindred, friends, and country.

his parents, kindred, friends, and country,
with an ardour
which was the chief source of

which was the chief source of all his pleasures and all his pains; and who, having devoted

and who, having devoted
his life to their service,
and to

the improvement of his mind,
resigned it calmly,

giving glory to his Creator,
wishing peace on earth.

wishing peace on earth,
and with
good will to all creatures

good will to all creatures
[Twenty-seventh] day of
the year of our blessed Rec-

in the year of our blessed Redeemer
One thousand seven hundred [and ninety-four].

JONES (Owen), a respectable tradesman and
a son of Mr. Jones, the upholsterer.

antiquary of the metropolis. He carried on for many years the trade of a furrier in Thame-street, where he died in 1814, aged seventy-four. He was a native of Denbighshire, and enthusiastically attached to the antiquities of the principality. He published, at his own expense, *The Archaeology of Wales*, 3 vols. 4to.; and the entire works of the celebrated Cambrian bard Dafydd ab Gwilym. He also procured copies of the unpublished Welsh poetry anterior to the end of the seventeenth century, forming about 60 vols. 4to. Mr. Jones, in 1772, succeeded in forming the *Gwyneddigion* (or Cambrian) Society, for the purpose of patronising the Welsh bards, and promoting the study of the ancient British language, and music.

JONES, in geography, a county of north Carolina, in Newbern, bounded on the north by Craven, east by Carteret, south by Onslow, and north-west by Lenoire counties: containing 3141 citizens, and 1681 slaves, in 1795. It is watered by the Trent, and the chief town is Trenton.

IONESIA, a genus of plants first discovered at Calcutta, and belonging to the class heptandra, order monogynia. It was so named by the Asiatic Society, in honor of Sir W. Jones. Dr. Roxburgh, a member of the society, thus describes it: 'CAL. two-leaved : COR. one petalled, pistal bearing; base of the tube impervious; ens long, ascending, inserted into the margin

of a glandulous nectarial ring, which crowns the mouth of the tube, the uppermost two of which more distant; style declining: legume turgid: trunk erect, though not straight: bark dark brown, pretty smooth: branches numerous, spreading in every direction, so as to form a most elegant shady head: leaves alternate, abruptly feathered, sessile, more than a foot long, when young, pendulous, and colored: leaflets opposite, from four to six pairs, the lowermost broad lanced, the upper lanced; smooth, shining, firm, a little waved, from four to eight inches long: petiole common, round, and smooth: stipule axillary, solitary, a process from the base of the petiole: umbels terminal and axillary; between the stipule and branchlet, globular, crowded, subsessile, erect: bracts, a small-hearted one under each division of the umbel: peduncle and pedicels, smooth, colored: flowers very numerous, pretty large; when they first expand they are of a beautiful orange color, gradually changing to red, forming a variety of lovely shades; fragrant during night: surds generally from four to eight, smooth, gray, size of a large chestnut. The Ionesia flowers at the beginning of the hot season, and its seeds ripen during the rains. The plants and seeds were brought to Calcutta from the interior parts of the country, where it is indigenous.

IONIA, a country of Asia Minor, bounded on the north by Eolia, on the west by the Aegean and Icarian seas, on the south by Caria, and on the east by Lydia and part of Caria. It was founded by colonies from Greece, and particularly Attica, by subjects of Ion. Ionia was divided into twelve small states, which formed a celebrated confederacy often mentioned by the ancients. These twelve states were Priene, Miletus, Colophon, Clazomena, Ephesus, Lebedos, Teos, Phocaea, Erythrae, Smyrna, and the capitals of Samos and Chios. The inhabitants of Ionia built a temple which they called Pan Ionium, i.e. all Ionia, from the concourse of people that flocked there from every part of Ionia.

The IONIAN ISLANDS are situated in the Ionian Sea, near the coasts of South Albania and the Morea, and consist of Corfu, Cephalonia, Zante, Santa Maura, Ithaea, or Thiaki, Cerigo, and Paxo, and a number of smaller islands. Corfu is the most northerly, and lies opposite to Albania; Paxo, Santa Maura, Ithaea, Cephalonia, and Zante, follow each other in succession to the southward, lying along the coasts of Albania and the ancient Elis: Cerigo is detached, being 150 miles to the south-east of Zante and opposite to the coast of Lacobia. The territorial extent of this small state is estimated at about 1500 square miles, and the population, by a return made in 1807, is 206,000. The islands extend from $19^{\circ} 30'$ to $23^{\circ} 10'$ E. long.

Prior to the French revolution these islands were subject to Venice, but were ceded to France by the treaty of Campo Formio (1797). In 1799 they were taken by a Russian and Turkish fleet, and were erected into an independent republic by the name of the Seven Islands (Cerigo being included) and acknowledged as such by the different powers, at the general peace of Amiens. During the succeeding wars these islands were occupied by the different belli-

gerents in succession; and France long succeeded in keeping possession of Corfu with a strong garrison. In the arrangements at the congress of Vienna in 1815, it was agreed that the Ionian republic should be put under the protection, not of Turkey, which was too near a neighbour, nor of Russia, whose hostility to Turkey would have kept alive the flame of war, but of Great Britain, a power which might derive advantage from the naval stations and commercial resources of the islands, without indulging schemes of aggrandisement on the adjacent continent. A constitution for this small state was soon after drawn up and ratified by the British government in July, 1817.

These islands will be each found described in their alphabetical places. We may here observe of them generally, that their coasts are rugged and difficult of access, and their harbours insecure, with the exception of those of Ithaea and Cephalonia. The climate is in general mild, but the transitions from heat to cold are sudden: hot and scorching winds are sometimes destructive to vegetation; and at certain seasons there are violent rains and thunder. They are all subject to slight earthquakes, which are sometimes confined to a single island. The soil in the plains and valleys is fertile in vines, corn, olives, currants, cotton, honey, wax, &c. But of corn the quantity is not adequate to the consumption. Vines and olives are the chief objects of agriculture. Cotton also is raised in large quantities; and advantage is taken of the smallest portions of soil; but the general ruggedness of the surface leaves little scope for agricultural improvement. Pasturage is in general scanty; goats and sheep are reared in considerable number; but horses and cattle are brought from the continent. The wild animals are foxes, hares, and rabbits. Fishing is prosecuted on the coasts. Salt is the only extensive manufacture: next to it is olive oil. Wine, brandy, and various kinds of liquors, are likewise made in quantity. The imports are salt fish (which sells largely for diet during the holidays of the Greek church); next sugar and drings; also a limited quantity of woollen, liner, and hardware. Thousands of laborers annually cross from Zante to the Morea, to assist in getting in the harvest, and are paid for their service in corn, which they bring back, and keep as a family stock.

The constitution alluded to vests the legislative power of this republic in a senate of twenty-nine representatives, named as follows —

	Population.	Representatives.
Corfu	60,000	7
Cephalonia . . .	60,000	8
Zante	40,000	7
Santa Maura . . .	20,000	4
Cerigo	10,000	1
Ithaca	8,000	1
Paxo, (a very small island)	8,000	1
	206,000	29

No person can be a member of this body, or hold a public office of any consequence, without belonging to the class of gentry. Many British settlers have of late resorted hither; particularly to Zante.

IONIANS, in ancient history, a celebrated colony of Greeks, who settled in Asia Minor. They were originally descended from the Hellenes, and inhabited at first the upper part of Attica. Upon the death of Codrus the monarchial government was abolished in Athens, and succeeded by the administration of Archon-Neleus and Androclus; the younger sons of Codrus, being dissatisfied with this arrangement, collected a number of friends, and, complaining that Attica was too narrow for the increasing number of its inhabitants, set sail for the Asiatic coast. Here they attacked and drove out the ancient inhabitants, and by degrees spread themselves over the central and most beautiful parts of the coast from the promontory of Posideion to the banks of the Hermus. They afterwards obtained possession of Chios and Samos, and all these countries were united under the common name of Ionia, as the Ionians were the most numerous of the emigrants. Thus they established themselves in a beautiful and fertile country, enjoying the most delicious climate, and peculiarly adapted to a commercial intercourse with the most civilised nations of antiquity. Thus favored, they silently flourished in peace and prosperity, till their growing numbers and wealth excited the avarice and jealousy of the powers of Asia.

In process of time, possessing the delightful country above-mentioned, together with the mouths of great rivers, having before them convenient and capacious harbours, and behind wealthy and populous nations, whose commerce they enjoyed and engrossed, they attained such early and rapid proficiency in the arts of navigation and traffic, as raised the cities of Miletus, Cophophon, and Phœcea, to an extraordinary pitch of opulence and grandeur. Having obtained footing in Egypt, about 850 B.C., they acquired, and henceforth preserved, the exclusive commerce of that ancient and powerful kingdom. Their territories, though in their greatest breadth compressed between the sea and the dominions of Lydia to the extent of scarcely forty miles, became not only flourishing in peace, but formidable in war. Thus they remained in the full enjoyment of their liberties from the time of their migration till the reign of Croesus, king of Lydia, to whom they were compelled to submit after having baffled all the attempts of his predecessors to subdue them for upwards of 500 years. Before Cyrus invaded Lower Asia, he earnestly intreated the Ionians to share the glory of his arms; but, having lived at ease under the mild government of Croesus, they preferred their allegiance to him to the friendship of an unknown master. Accordingly they opposed him when he first invaded Lydia. But they were finally subdued by his lieutenant, Harpagus. In the reign of Darius Hystaspis they made an attempt to recover their ancient liberty, and maintained a war against the whole power of the Persian monarchy for six years: but they were

compelled to submit, and punished with great severity. The Ionians assisted Xerxes in his expedition against Athens with 100 ships; but they were persuaded by Themistocles to abandon the Persians, and their flight contributed not a little to the famous victory gained by the Athenians at Salamis. A similar expedient was resorted to at Mycale, so that few Persians escaped slaughter. On the conclusion of the peace between the Greeks and Persians, which happened in the reign of Artaxerxes, one of the articles sworn to by both parties was, that all the Greek states of Asia should be made free, and allowed to live according to their own laws. The Ionians, thus delivered from the Persian yoke, formed an alliance with the Athenians; but were treated by them rather like subjects than allies. Their fortune was various; at one time subject to the Persians, and at another time revolting from them, till they were at length delivered by Alexander, who restored all the Greeks in Asia to the enjoyment of their ancient rights and privileges. After the death of Alexander, they fell under the power of the king of Syria, till the Romans obliged Antiochus III., surnamed the Great, to grant the same liberty to the Greek colonies in Asia, which they had procured for the Greek states in Europe. On this occasion most of the free cities entered into an alliance with Rome, till they were again brought into subjection by Mithridates, king of Pontus; by whose orders they massacred, without distinction, all the Romans and Italians whom trade, or the salubrity of the climate, had drawn into Asia. Upon Sylla's arrival in Asia they abandoned Mithridates, and declared for the Romans. Sylla, having routed the armies of Mithridates, revenged on the Asiatics the death of the Romans, by depriving them of their liberty, and laying such heavy taxes and fines on their cities as reduced them to beggary. This was a most fatal blow to Asia; nor did the inhabitants ever after recover their ancient splendor, notwithstanding the favor shown them by many of the emperors, under whose protection they enjoyed some show of liberty. See GREECE.

The IONIC SICK was the first of the ancient sects of philosophers; the others were the Italic and Eleatic. The founder of this sect was Thales, who, being a native of Miletus in Ionia, occasioned his followers to assume the appellation of Ionic: Thales was succeeded by Anaximander, and he by Anaximenes, both natives of Miletus; Anaxagoras Clazomenensis succeeded them, and removed his school from Asia to Athens, where Socrates was his scholar. It was the distinguishing tenet of this sect, that water was the principle of all natural things.

IONIUM MARE, a part of the Mediterranean Sea, at the bottom of the Adriatic. It lies between Sicily and Greece. That part of the Ægean Sea which lies on the coasts of Ionia in Asia, is called the Sea of Ionia, and not the Ionian Sea. According to some authors, the Ionian Sea receives its name from Io, who swam across it, after her metamorphosis. See Io.

JONK, or **JONQUE**, in naval affairs, a kind of small ship, very common in the East Indies.

These vessels are about the size of our fly-boats; and differ in form of their building, according to the different methods of naval architecture used by the nations to which they belong. Their sails are frequently made of mats, and their anchors are made of wood.

JONQUILLE, *n. s.* Fr. *jouquelle*. A species of daffodil. The flowers of this plant are greatly esteemed for their strong sweet scent.

Nor gradual bloom is wanting,
Nor hyacinths of purest virgin white,
Low bent, and blushing inward; nor *jouquilles*
Of potent fragrance. *Thomson's Spring.*

Is such a life, so tediously the same,
So void of all utility or aim,
That poor *Jonquil*, with almost every breath
Sighs for his exit, vulgarly called death. *Couper. Hope.*

JONQUILLE. See NARCISSUS.

JONSAC, a town of France, in the department of the Lower Charente, nine miles S. S. E. of Pons, and thirteen miles and one-third N. N. W. of Montlien.

JONSIUS (John), a learned author of the seventeenth century, born at Holstein, and educated at Frankfort on the Maine, where he died young in 1659. He wrote a work, entitled *De Scriptoribus Historiae Philosophiae*, which is esteemed.

JONSON (Ben), one of the most considerable dramatic poets of the seventeenth century, was born in Westminster in 1574, and educated at the public school under the great Cauden. He was descended from a Scottish family; and his father, whose estate was confiscated by the regent Murray, dying before he was born, and his mother marrying a bricklayer, Ben was taken from school to work at his step-father's trade. Not being fond of this employment, he went into the Low Countries, and distinguished himself in a military capacity. On his return to England, he entered at St. John's College, Cambridge; and, having killed a person in a duel, was condemned, and narrowly escaped execution. After this he turned actor; and Shakspeare is said to have first introduced him to the world, by recommending a play of his to the stage, after it had been rejected. His Alchymist gained him such reputation, that in 1619 he was, at the death of Mr. Daniel, made poet laureat to king James I. and M.A. of Oxford. But, being no economist, we find him after this petitioning king Charles I., on his accession, to enlarge his father's allowance of 100 merks into pounds. He died in August 1637, aged sixty-three, and was buried in Westminster Abbey; and on his grave stone is inscribed 'O rare Ben Jonson.' The most complete edition of his works was printed in 1756, in 7 vols. 8vo.

JOPPA, a sea-port town of Palestine, lying south of Cesarea; and anciently the only port to Jerusalem, whence all the materials sent from Tyre towards the building of Solomon's temple were brought hither and landed. 2 Chr. ii. 16. It is said to have been built by Japhet, and from him to have taken its name Japho, afterwards moulded into Joppa; and even the heathen geographers speak of it as built before the flood. It is now called Jaffa, somewhat nearer to its first appellation. See JAFFA

JORDAN (Camille), a modern French statesman, was born at Lyons in 1771; and, becoming a member of the convention, defended his native city when it was denounced as a focus of counter-revolution. This effort of his zeal obliged him to retire to Switzerland, and afterwards to England. Returning to France, he was, in March 1797, elected by the department of the Rhone to the council of Five Hundred: but the change of the 8th of Fructidor rendered him again an exile, when he retired to Weimar. On Buonaparte succeeding to the power of the directory, Jordan returned home, and in 1802 published a tract, entitled *Vrai sens du Vote National sur le Consulat à vie*. Under the empire of Napoleon he remained a private citizen. But in 1814 he received from the Bourbons letters of nobility, and was decorated with the order of the legion of honor. He died at Paris, May 19th, 1821. Besides many political pieces, he was the author of various biographical eulogies.

JORDAN, גְּדוֹן, Heb. i. e. the river of judgment, or, as others translate it, the river of Dan, a river of Judæa, so named from the people where it has its source, which is a lake called Phiala, from its round figure, to the north of its apparent rising from the mountain Panium or Paneum, as was discovered by Philip, tetrarch of Trachonitis; for, on throwing light bodies into the Phiala, he found them emerge again at Panem. Josephus. From Panem it runs in a direct course to a lake called Samachonites; as far as which it is called Jordan the Less; and thence to the Lake of Gennesareth, or of Tiberias, where it comes increased by the lake Samachonites and its springs, and is called the Greater Jordan; continuing its direct course southwards, till it falls into the Asphaltites, or Dead Sea. Near Jericho the Jordan is found deep, and rapid, wider than the Tiber at Rome, and nearly equal to the Thames at Windsor. The banks are steep, and about fifteen feet high. The soil around is deeply impregnated with salt, and covered with efflorescences of that mineral.

JORDANO (Luca), or LUKE GIORDANO, an eminent Italian painter, born at Naples in 1632. He became very early a disciple of Joseph Ribera; but, going afterwards to Rome, he adopted the manner of Pietro de Cortona, whom he assisted in his larger works. Some of his pictures being seen by Charles II., king of Spain, he engaged him in painting the Escorial. The king showed him a picture of Bassani, expressing a concern that he had not a companion for it: Luca painted one so exactly in Bassani's manner, that it was taken for a performance of that master. For this service he was knighted, and rewarded with several honorable employments. The great works he executed in Spain gave him still greater reputation, when he returned to Naples; so that, though he was a very quick workman, he could not supply the eager demands of the citizens. No one ever painted so much as Jordano; and he often presented altar-pieces to churches that were not able to purchase them. He died in 1705, and left a large fortune to his family.

JORDANS (James), one of the most eminent painters of the Flemish school, was born at Antwerp in 1593. He learned the principles of his art from Adam Van Ort, whose daughter he married; which connexion hindered him from visiting Italy. He improved most under Rubens; for whom he worked, and from whom he learned his best principles: his taste directed him to large pieces; and his manner was strong and true. A great number of altar-pieces painted by him are preserved in the churches in the Netherlands, which maintain the reputation of this artist. He died in 1678.

JORDEN, n. s. Sax. *gōn*, *stercus*, and *vēn*, *receptaculum*. A pot.

They will allow us re'er a *jorden*, and then we leak in your chimney; and your chamberlye breeds fleas like a loach. *Shakespeare.*

This China *jorden* let the chief o'ercome
Replenish, not ingloriously at home. *Swift.*

The copper pot can boil milk, heat porridge, hold small beer, or, in case of necessity, serve for a *jorden*. *Swift.*

JORTIN (John), D. D., a learned English clergyman, born in the parish of St. Giles, Middlesex, October 23d, 1698. His father Renatus Jortin was a native of Bretagne, and came to England in 1685, upon the revocation of the edict of Nantes. He was gentleman of the bed-chamber to king William III. in 1691, and afterwards secretary to admiral Russel, Sir G. Rooke, and Sir Cloudesley Shovel; but was shipwrecked with the latter, October 22d, 1707. Young Jortin completed his education at Cambridge; and assisted Pope in his translation of the Iliad, in his eighteenth year. In 1738 lord Winchester gave him the living of Eastwell in Kent; but, the place not agreeing with his health, he soon resigned it. Archbishop Herring, about 1751, presented him to the rectory of St. Dunstan's in the east; and bishop Osbaldeston in 1762 gave him that of Kensington, with a prebend in St. Paul's cathedral, and made him archdeacon of London. His temper, as well as his aspect, was rather morose and saturnine. His sermons were sensible and argumentative: but he appeared to greater advantage as a writer. His Remarks on Ecclesiastical History, his Six Dissertations, his Life of Erasmus, and his Sermons, were extremely well received by the public, and have undergone several editions. He died in 1770.

JOSEPHI, יְהוָה, Heb. i. e. increase, the eldest son of Jacob by Rachel. The very affecting narrative of his life, of his father's partiality for him, his brethren's envy, his prophetic dreams, his faithful services when sold as a slave, his extraordinary chastity, his unjust imprisonment, his promotion to be prime minister of Egypt, and his preservation of the people, as well as of his father's family, from famine, are recorded in Gen. xxxvii—xlvii.

JOSEPH II, a modern emperor of Germany, was the son of Francis of Lorraine, and Maria Theresa: he was born at Vienna in March 1741, and brought up by his mother with great religious strictness. At the early age of nineteen he was married to an accomplished

princess, Isabella of Parma. Though chosen emperor on the death of his father, in 1765, he possessed but little real power: his mother reigned in her own right, queen of Hungary and Bohemia, and sovereign of Austria and the Low Countries. The young emperor was however distinguished by the simplicity and urbanity of his manners, and his ardent desire of information. In 1760 he made the tour of Italy, and on his return paid a visit to the king of Prussia, the consequence of which appeared in the partition of Poland between Austria, Russia, and Prussia in 1772.

In 1777 he was involved in a war with Saxony and Prussia, in consequence of his claims upon Bavaria; but in these hostilities nothing decisive took place in the field, and they terminated under the mediation of France and Russia. In 1780 he had an interview with the empress Catharine in Lithuania, and accompanied her to St. Petersburg. In the same year the death of his mother left him at liberty to pursue his ecclesiastical and other reforms with less opposition. Some strong edicts followed, regulating the intercourse with the court of Rome, and one granting full toleration to the Protestants, and the privilege of subjects to the Jews. He also sold the church lands for the benefit of the clergy. In 1781 he travelled into Holland and the Netherlands, and resumed a former project respecting the line of fortresses, called the Dutch barrier. On his return to Vienna he still more decidedly attacked the power of the church. He disclaimed all subordination in secular affairs to the Roman see, suppressed numerous religious houses, and induced Pius VI. to seek by a visit to Vienna to avert for a while various other similar changes. But although the pontiff was treated respectfully, he could produce little alteration in the emperor's plans. In 1784 he claimed of the united provinces the town of Maestricht, and a free navigation of the Scheldt. Sending in October in that year a vessel from Antwerp, with orders to refuse being searched by the Dutch guardships, the interference of France alone prevented a war. The Dutch, however, were obliged to send a deputation to apologise for firing on his vessel. A new code of laws now engaged his attention. It abolished the indiscriminate forfeiture of life, but substituted some punishments which were even more appalling, and upon the whole exhibited little legislative ability. In 1787 he had a violent contest with his subjects in the Low Countries, owing to his determination to introduce the same reforms of an ecclesiastical kind as he had enforced in the rest of his dominions. It resulted in an open revolt. At the close of his life he engaged in a war with Turkey, at the instigation of Catharine, and obtained several considerable successes; but his death-bed was disturbed with the remonstrances of his subjects against his rash innovations. He died in 1790, and was succeeded by his brother Leopold. See GERMANY.

JOSEPH'S BAY (St.), a bay of West Florida, of the figure of a horse-shoe, being about twelve miles in length, and seven across where broadest. The bar is narrow; and immediately within is from four to six fathoms and a half soft ground.

The best anchorage is within the peninsula, opposite to some ruins that remain of the village of St. Joseph. The peninsula opposite St. Joseph's is very narrow.

JOSEPHINE Rose Tachier, the late wife of Napoleon Buonaparte, and empress of France, was born at Martinique, June 24th, 1763. Her maiden name was Rose Tachier de la Pagené. Being brought to France early in life by her father, and distinguished for her beauty, she was married in that country to M. de Beauharnois, governor of the Antilles. About the year 1787 she returned to Martinique on a visit to her mother, and remained with her three years, when the revolutionary events of that colony induced her to take refuge in France. She was now imprisoned with her husband by Robespierre, to whose tyranny M. Beauharnois fell a victim: M. Tallien procured the liberty of Josephine, a benefit she afterwards acknowledged by allowing him a pension. Barras, afterwards a director, procured her the restoration of her husband's property. Soon after she became acquainted with Buonaparte, to whom she was married in 1796. He was then placed in command of the army of Italy, whither she accompanied him. On his embarking for Egypt, she retired to Malmaison, and employed her leisure in forming a museum, and commencing a collection of plants. When he obtained the station of first consul, she exerted her great influence, it is said, in behalf of many exiles, and was universally regarded as the friend of the distressed. Buonaparte said to her at this period:—‘ Si je gagne les batailles, c'est vous qui gagnez les coeurs.’ When he assumed the imperial title and authority, a divorce was proposed by some of his partisans, on the same plea of their want of issue, which afterwards prevailed with him. But he then rejected this counsel, and Josephine was crowned empress at Paris, and queen of Italy. Her son was subsequently married to the princess of Bavaria; and her daughter Hortensia to Lewis Buonaparte, king of Holland. At length she was destined to descend from her exalted station, to make way for the adulterous marriage of her husband with the princess Maria Louisa of Austria. Malmaison now became her principal residence, and here she amused her leisure with botanical studies, retaining, it is said, a strong affection for Napoleon, and receiving marked attentions from the emperor Alexander and the king of Prussia, when they entered France: but she was at this period laboring under her last illness, and died much respected 29th May, 1814.

Sir Walter Scott speaks of her influence over Napoleon as very important to his interests on various occasions. It is remarkable that among the just awards of Providence, on the later life of this unprincipled adventurer, he was as harshly separated from her who had then become his lawful wife, as he had formerly separated himself from this amiable woman.

JOSEPHUS, the celebrated historian of the Jews, was of noble birth; his father Mattathias being descended from the high priests, and his mother of the blood royal of the Maccabees. He was born A. D. 37, under Caligula, and

lived under Domitian. At sixteen years of age he joined the sect of the Essenes, and then the Pharisees; and having been successful in a journey to Rome, upon his return to Judea was made captain-general of the Galileans. Being taken prisoner by Vespasian, he foretold his coming to the empire, and, his own deliverance by his means. He accompanied Titus at the siege of Jerusalem, and wrote his Wars of the Jews, which Titus ordered to be put in the public library. He afterwards lived at Rome, where he enjoyed the privileges of a Roman citizen, and where the emperors loaded him with favors, and granted him large pensions. Besides the above work, he wrote, 1. Twenty books of Jewish Antiquities, which he finished under Domitian. 2. Two books against Appian. 3. A Discourse on the Martyrdom of the Maccabees. 4. His own Life. These works are written in Greek.

JOSHUA, Heb. יְשׁוּעָה, i. e. a Saviour, the renowned general of the Jews, who conducted them through the wilderness, &c., died in 1413, B.C., aged 110.

Joshua, a canonical book of the Old Testament, containing a history of the wars and transactions of the person whose name it bears. This book may be divided into three parts: the first is a history of the conquest of the land of Canaan; the second, which begins at the twelfth chapter, is a description of that country, and the division of it among the tribes; and the third, comprised in the last two chapters, contains the renewal of the covenant he caused the Israelites to make, and the death of their victorious leader and governor. The whole comprehends a term of seventeen, or, according to others, of twenty-seven years.

JOSTLE, v. a. Fr. *jouster*. To rush against. See *JORT*.

JOT, n. s. Gr. *iota*. A point; a tittle; the least quantity assignable.

As superfluous flesh did rot
Amendment ready still at hand did wait,
To pluck it out with pincers fiery hot,
That soon in him was left no one corrupt *jot*.
Fairie Queene.

Go, Eros, send his treasure after, do it;
Detain no *jot*, I charge thee. *Shakespeare.*
Let me not stay a *jot* from dinner; go, get it ready. *Id.*

This bond doth give thee here no *jot* of blood:
The words expressively are a pound of flesh. *Id.*

This nor hurts him nor profits you a *jot*:
Forbear it therefore; give your cause to Heaven. *Id.*

I argue not
Against Heaven's hand, or will; nor bate one *jot*
Of heart or hope; but still bear up and steer
Right onwards. *Milton.*

You might, with every *jot* as much justice, hang
me up because I'm old, as beat me because I'm im-
potent. *L'Estrange.*

The final event will not be one *jot* less the conse-
quence of our own choice and actions, for God's
having from all eternity foreseen and determined
what that event shall be. *Rogers.*

JOTAPATA, in ancient geography, a town of
the Lower Galilee, distant forty stadia from Ga-

bara: a very strong place, situated on a rock, walled round, and encompassed on all hands with mountains, so as not to be seen but by those who come very near. It was with great difficulty taken by Vespasian, being defended by Josephus, who commanded in it; when taken it was ordered to be razed.

JOUBERT (Lawrence), counsellor and physician to the king of France, chancellor and judge of the university of Montpellier, was born at Valance in Dauphiny, in 1530. He became the disciple of Rondelet at Montpellier; and at his death succeeded to the regius professorship of that university, where he had given abundant proofs of his merit, and strengthened his reputation by the lectures he read in that capacity, as well as by the works he published. Henry III., who passionately wished to have children, sent for him to Paris, in hopes, by his assistance, to render his marriage fruitful; when much offence was taken at an indecent piece he published, under the title of *Vulgar Errors*. He died in 1582; and his son Isaac translated some of his Latin paradoxes into French.

JOUBERT (Bartholomew Catherine), a French revolutionary general, was a native of Pont-de-Vaux, in Bresse, and born in 1769. He was destined for the bar, but at the age of fifteen forsook his studies, and entered a regiment of artillery. His discharge being obtained by his friends, he was sent to Lyons to continue his education, and at the beginning of the Revolution he was a student at Dijon. He enlisted in December, 1791, as a volunteer, and served as a sergeant in the army of the Rhine. In April, 1792, he was made a sub-lieutenant, and displayed great courage and activity in the campaign against the Austrians and Sardinians. In September, 1793, Joubert was taken prisoner by the latter; and, on his return home, distinguished himself by opposing the Jacobins, who were tyrannising in the neighbourhood of his native place. In 1795, at the battle of Loano, under Kellerman, he was made general of brigade on the field of battle. In 1796 he attracted notice at Montenotte, as well as at Millesimo, Cava, Montebaldo, Rivoli, and above all in the Tyrol, where, though opposed by a warlike people, he succeeded in penetrating Innspruck, and was afterwards opposed to the Russian general Suvarow. Joubert was killed at the battle of Novi, 1799.

JOUDPORE, or MARWAR, a city and principality of Hindostan, in the province of Ajmeer. The territories of Joudpore are intermixed with those of Odeypore and Jyepore, and are said to touch the Indus on the west, and the province of Gujerat on the south. The southern and eastern parts yield sugar, cotton, and all the grains of India. The western portion is chiefly desert or pasture lands. But here is a hardy race of camels, horses, and cattle. The cultivators of the soil are Jauts, and the rest of the inhabitants of the tribe of Rajpoots. The rajahs of Odeypore, Jyepore, and Joudpore, were formerly of great consequence. The capital is situated on a hill, and is chiefly built of stone. It carries on a good trade with Guzerat and the Deccan. The rajah of this province is an ally of the British.

JO'VIAL, adj.Fr. *jovial*, *joye*;**JO'VIALLY, adv.**Lat. *jovialis*; Italian**JO'VIALNESS, n. s.***giogia*. Under the**Joy, n. s.; v. n. & v. a.**

influence of Jupiter;

JOY'ANCE, n. s.

gay; airy; merry:

JOY'FUL, adj.

mirth and pleasure-

JOY'FULLY, adv.

try; happiness; fel-

JOY'FULNESS, n. s.

icity. Joy, to re-

JOY'LSS, adj.

joice; to congratu-

JOY'OUS, adj.

late, gladden, or ex-

hilarate; to enjoy; to have possession. Joyance, gaiety. Joyful, full of joy. Joyless, void of joy; feeling no pleasure; giving no pleasure. Joyous, blithesome; cheerful; light of heart.

Long thus I *joyed* in my happiness
And well did hope my *joy* would have no end.

Spenser. *Daphneida*.

Bring home with you the glory of her gain;
With *joyance* bring her, and with jollity.

Spenser.

My lord Bassanio, and my gentle lady,

I wish you all the *joy* that you can wish.

Shakspeare.

Let us hence,

And let her *joy* her raven-coloured love.

Id. *Titus Andronicus*.

My lord, sleek o'er your rugged looks,

Be bright and *jovial* among your guests.

Shakspeare.

I cannot *joy*, until I be resolved

Where our right valiant father is become.

Id. *Henry VI.*

Some men, of an ill and melancholy nature, incline the company, into which they come, to be sad and ill-disposed; and contrariwise, others of a *jovial* nature dispose the company to be merry and cheerful.

Bacon's *Natural History*.

No man imparteth his *joys* to his friend, but he *joyeth* the more; and no man imparteth his *grieves*, but he grieveth the less.

Id. *Essays*.

They laugh, we weep; they *joy* while we lament.

Fairfax.

Their cheerful age with honour youth attends,
joyed that from pleasure's slavery they are free.

Denham.

I might have lived, and *joyed* immortal bliss,
Yet willingly chose rather death with thee.

Hilton.

I cannot speak, tears so obstruct my words
And choak me with unutterable *joy*.

Otway.

The usurper *joyed* not long

His ill-got crown. Dryden's *Spanish Friar*.

Almeyda smiling came,

Attended with a train of all her race,

Whom in the rage of empire I had murdered;

But now, no longer foes, they gave me *joy*.

Of my new conquest. Id. *Don Sebastian*.

The roofs with *joy* resound;

And hymen, iō hymen, rang around. Dryden.

Like us they love or hate, like us they know
To joy the friend, or grapple with the foe. Prior.

Perhaps the jest that charmed the sprightly crowd,

And made the *jovial* table laugh so loud,

To some false notion owed its poor pretence. Id.

And *jovial* youth of lightsome vacant heart,

Whose every day was made of melody

Hears not the voice of mirth. Blair's *Grave*.

Hail to the *joyous* day! with purple clouds

The whole horizon glows. Thomson.

Think, ye masters iron-hearted,

Lolling at your *jovial* boards;

Think how many backs have smarted

For the sweets your cane affords.

Conquer. *Negro's Complaint*.

I.

Away with these vain thoughts, I will be *joyous*—
And here comes *Joy's* true herald.

Byron. Sardanapalus.

I have endured as much in giving life
To those who will succeed them, as they can
In leaving it : but mine were joyful pangs.

Id. Two Foscari.

There are, to whom (their taste such pleasures
cloy),

No light—thy wisdom yields, thy wit no joy.
Peace to their heavy heads, and callous hearts,
Peace—such as sloth, as ignorance imparts.

Canning. New Morality.

JOVIAN, the Roman emperor, was elected by the army, after the death of Julian the apostate, in 363. He at first refused, saying he would not command idolatrous soldiers ; but, upon an assurance that they would embrace Christianity, he accepted the throne, and immediately shut all the pagan temples, and forbade their sacrifices. But he did not long enjoy the dignity to which his merit had raised him ; being suffocated in his bed by the fumes of a fire that had been made to dry the chamber, in the thirty-third year of his age, and the eighth month of his reign.

JOU'ISANCE, n. s. Fr. *rejonissance* Jollity; merriment; festivity. Obsolete.

Colin, my dear, when shall it please thee sing,
As thou wert wont, songs of some *jouissance*?
Thy muse too long slumbereth in sorrowing,
Lulled asleep through love's misgovernance.

Spenser.

JOVIUS (Paul), or Paulo Govio, a celebrated historian, born at Como in Italy, in 1483. As his father died in his infancy, he was educated by his eldest brother, Benedict Jovius, under whom he became well skilled in classical learning ; and then went to Rome for the sake of enjoying the benefit of the Vatican library. He there wrote his first piece, *De piscibus Romanis*, which he dedicated to Cardinal Lewis of Bourbon. He received a pension of 500 crowns for many years from Francis I. king of France, whose favor he secured by his flattery. But, in the following reign, having disgusted the constable Montmorency, his name was struck out of the list of pensioners. But Jovius had obtained a high reputation by his writings ; and having always showed great respect to the house of Medicis, on whose praises he had expatiated in his works, he applied to Clement VII. and obtained the bishopric of Nocera. His principal piece is his history, which is that of his own time throughout the world, beginning with 1494, and extending to 1544. This was the chief business of his life ; for he formed the plan of it in 1515, and continued upon it till his death, which happened at Florence in 1552. It is printed in 3 vols. folio.

JOUR'NAL, *adj. & n. s.* Fr. *journal*, *jour-*

JOUR'NALIST, *n. s.* Fr. *journaliste*; Ital. *giornale*;

JOUR'NEY, *n. s. & v. n.* Span. *journal*, *jour-*

JOUR'NEYMAN, *n. s.* *nada.* Daily : an

JOUR'NEYWORK, *n. s.* account of daily transactions ; any daily paper : journalist, a writer of journals : journey, the travel of a day ; travel by land distinguished from a voyage by sea ; passage from place to place ; to travel : journeyman, a workman hired by the day : journeymen, work done by the day ; hired labor.

We are *journeying* unto the place, of which the Lord said, I will give it you. *Numbers*

And was concluded, that the knight Departen shuld, the same night ;
And forthwith there take his voiage,
To *journey* for his marriage ;
And returnen with such an host,
That wedded might be lest and most.

Chaucer. Dreame.

Ere twice the sun has made his *journey* greeting
To the under generation, you shall find
Your safety manifested.

Shakspeare. Measure for Measure.

When Duncan is asleep,
Whereto the rather shall this day's hard *journey*
Soundly invite him. *Id. Macbeth.*

Players have so strutted and bellowed, that I have
thought some of Nature's *journeymen* had made men,
and not made them well. *Id. Hamlet.*

So are the horses of the enemy,

In general *journey* hated and brought low.

Shakspeare.

I have *journeyed* this morning, and it is now the heat of the day ; therefore your lordship's discourses had need content my ears very well, to make them intreat my eyes to keep open. *Bacon.*

Edward kept a most judicious *journey* of all the principal passages of the affairs of his estate.

Hayward on Edward VI.

Since such love's natural station is, may still
My love descend, and *journey* down the hill ;
Not panting after growing beauties, so
I shall ebb on with them who homeward go.

Donne.

Scare the sun
Hath finished half his *journey*. *Milton.*
Did no committee sit, where he
Might cut out *journeywork* for thee ?
And set thee a task with subornation,
To stitch up sale and sequestration.

Hudibras.

I intend to work for the court myself, and will have *journeymen* under me to furnish the rest of the nation. *Addison.*

Her family she was forced to hire out at *journey-work* to her neighbours. *Arbuthnot's John Bull.*

Having heated his body by *journeying*, he took cold upon the ground. *Wiseman's Surgery.*

He for the promised *journey* bids prepare
The smooth-haired horses and the rapid car.

Pope.

What a strange moment must it be when near
Thy *journey's* end thou hast the gulph in view !

Blair.

In that tale I find
The furrows of long thought, and dried-up tears,
Which, ebbing, leave a sterile track behind,
O'er which all heavily the *journeying* years
Plot the last sands of life, where not a flower appears.

Byron. Childe Harold.

JOURNAL. See DIARY.

JOURNAL, in merchants' accounts. See BOOK-KEEPING.

JOURNAL, in navigation, a sort of diary, or daily register of the ship's course, winds, and weather, together with a general account of whatever is material to be remarked in the period of a sea voyage. In all sea-journals, the day, or what is called the twenty-four hours, terminates at noon, because the errors of the dead reckoning are at that period generally corrected by a solar observation. The daily account usually contains the state of the weather ; the variation, increase, or diminution of the wind ;

and the suitable shifting, reducing, or enlarging the quantity of sail extended; as also the most material incidents of the voyage, and the condition of the ship and her crew, together with the discovery of other ships or fleets, land, shoals, breakers, soundings, &c.

JOUST, *n. s. & v. a.* Fr. *joust*. Tilt; tourney; mock fight: to run in the tilt. It is now written, less properly, just.

Come se the yle and hem dispot,
Where should be *joustis* and turnayes,
And armes done in other waies. *Chaucer. Dreame.*

Thus praied the quene, and everichone
And for there should ne be no nay.

They stinten *jousting*, all, a day,
To pray my lady, and require,

To be content and out of fere. *Chaucer.*

And every knight turned his horses hede
To his felow, and lightly laid a spere
Into the rest; and so *jousts* began,
On every part abouen, here and there.

Some brake his spere; some threw down horse and man

About the felde, astray, the stedes ran.

* * * * *

And the *jousting* alle was left off clene
And fro hire horse the nine alight anon.

Chaucer. The Floure and the Leaf.

Am I that Endymion, who was wont in court to lead my life, and in *jousts*, tourneys, and arms, to exercise my youth? Am I that Endymion?

Lily. Midas and Endymion.

Bases, and tinsel trappings, gorgeous knights
At *joust* and tournament. *Milton's Paradise Lost.*

JOUVENET (John), a celebrated French painter, born at Rouen in 1644; his father, who was also a painter, educated him for his own profession; but his greatest improvement was derived from the instructions of Nicholas Poussin. He acquired a sufficient knowledge of design to qualify him for employment in several grand works in the palaces at Paris and Trianon; in many of the churches and convents; and in the hospital of invalids, where he painted the twelve apostles, each figure being fourteen feet high. He was esteemed to have a ready invention, to be correct in his designs, and grand in his compositions. Being deprived of the use of his right hand, by a paralytic disorder, he continued to paint with his left. He died in 1717.

JOUX, a valley and lake of Switzerland, in the canton of Vaud, in the Jura chain of the Alps. The valley contains several large villages, and about 3000 inhabitants. The lake is about five miles long, and more than one broad; its greatest depth is about 150 feet.

JOWA, a river of the Missouri, United States, which enters the Mississippi on the right bank. It is 150 yards wide at its mouth, and is navigable for boats nearly 300 miles. Thirty-six miles from its mouth it divides into two branches, of which the right is called the Red Cedar River, from the quantity of that wood on its borders.

JOWLER, *n. s.* Perhaps corrupted from howler, as making a hideous noise after the game, whom the rest of the pack follow as their leader. The name of a hunting dog or beagle.

See him drag his feeble legs about,
Like hounds ill-coupled: *jowler* lugs him still
Through hedges, ditches, and through all this ill. *Druden.*

JOWTER, *n. s.* Perhaps corrupted from jolter.

Plenty of fish is vented to the fish drivers, whom we call *jouvers*. *Carow.*

JOYCE (Jeremiah), an ingenious writer on general science. He became first known to the public as a member of the corresponding Society, and as being included in a state prosecution with Hardy, Horne Tooke, Thelwall, &c. He had, formerly, been domestic tutor to the sons of earl Stanhope, who gave a splendid entertainment on the return of Mr. Joyce to his seat at Chevening, in Kent. Not long after, he settled in London and devoted himself to writing for the press. One of his first employments was as coadjutor with Dr. George Gregory, in the compilation of the Cyclopaedia, which was published under the name of the latter. The success of this undertaking gave rise to another work on a similar plan, which bore in the title-page the name of Mr. William Nicholson. Mr. Joyce is said to have been the principal writer. He subsequently composed Scientific Dialogues; Dialogues on Chemistry; Letters on Natural Philosophy; &c. Mr. Joyce, was a protestant dissentient, and, we believe, occasionally preached. He died at Highgate, near London, in 1816.

IPECACUAN'HA, *n. s.* An Indian plant.

Ipecacuanha is a small irregularly contorted root, rough, dense, and firm. One sort is of a dusky greyish colour on the surface, and of a paler grey when broken, brought from Peru: the other sort is a smaller root, resembling the former; but it is of a deep dusky brown on the outside, and white when broken, brought from the Brasils. The grey ought to be preferred, because the brown is apt to operate more roughly. *Hill's Materia Medica.*

IPECACUANHA, in the *materia medica*, a West Indian root, of which there are principally two kinds, distinguished by their color, and brought from different places; but both possessing the same virtue, though in a different degree. The one is ash-colored or gray, and brought from Peru; the other is brown, and is brought from the Brasils; and these are indifferently sent into Europe under the general name of ipecacuanha. The plant they belong to is a species of *Psychotria*. The ash-colored ipecacuan is a small wrinkled root, bent and contorted into a great variety of figures, brought over in short pieces full of wrinkles and deep circular fissures, quite down to a small white woody fibre that runs in the middle of each piece: the cortical part is compact, brittle, looks smooth and resinous upon breaking; it has very little smell: the taste is bitterish and subacid, covering the tongue as it were with a kind of mucilage. The brown sort is small, and somewhat more wrinkled than the foregoing; of a brown or blackish color without, and white within. The first sort, the ash-colored or gray ipecacuan, is that usually preferred for medicinal use. The brown has been sometimes observed, even in a small dose, to produce violent effects. A third sort, called the white, from its color, has also been distinguished. It is woody, has no wrinkles, and no perceptible bitterness in taste. This, though taken in a large dose, has scarcely any effect at all. It is supposed to belong to a species of *viola*. Mr. Geoffroy

calls this sort bastard ipecacuan, and complains that it is an imposition upon the public. Ipecacuan was first brought into Europe about the middle of the seventeenth century, and an account of it published about the same time by Piso ; but it did not come into general use till about 1686, when Helvetius, under the patronage of Louis XIV., introduced it into practice. This root is one of the mildest and safest emetics with which we are acquainted ; and has this peculiar advantage, that, if it should not operate by vomit, it passes off by the other emunctories. It was first introduced with the character of an almost infallible remedy of dysenteries, and other inveterate fluxes, as menorrhagia and leucorrhœa, and also in disorders proceeding from obstructions of long standing. In dysenteries, it almost always produces happy effects, and often performs a cure in a very short space of time. In other fluxes of the belly, or where the patient breathes a tainted air, it has been found equally successful : in these cases it is necessary to continue the use of this medicine for several days, and to join with it opiates, diaphoretics, and the like. This root, given in substance, is as effectual, if not more so, than any of the preparations of it ; the pure resin acts as a strong irritating emetic, but it is of little service in dysenteries ; while an extract prepared with water is almost of equal service in these cases with the root itself, though it has little effect as an emetic. Hence Geoffroy concludes, that the chief virtue of ipecacuan in dysenteries depends upon its gummy substance, which lining the intestines with a soft mucilage, when their own innævus has been abraded, occasions their exulcerations to heal, and defends them from the acrimony of the juices ; and that the resinous part, in which the emetic quality resides, is required, where the morbid matter is lodged in the glands of the stomach and intestines. But if the virtues of this root were entirely owing to its mucilaginous or gummy part, pure gums, or mucilages, might be employed to equal advantage. Water, assisted by a boiling heat, takes up from all vegetables a considerable portion of resinous along with the gummy matter : if the ipecacuan remaining after the action of water be digested with pure spirit, it will not yield half so much resin as at first : so that the aqueous extract differs from the crude root only in degree, being proportionably less resinous, and having less effect, both as an emetic and in the cure of dysenteries. The virtues of ipecacuan, in this disorder, depend upon its promoting perspiration, the freedom of which is of the utmost importance, and an increase of which, even in healthful persons, is generally observed to suppress the evacuation by stool. In dysenteries, the skin is for the most part dry and tense, and perspiration obstructed : the common diaphoretics pass off without effect through the intestinal canal ; but ipecacuan brings on a plentiful perspiration. After the removal of the dysentery, it is necessary to continue the use of the medicine for some time longer, to prevent a relapse ; for this purpose, a few grains divided into several doses, so as not to occasion any sensible evacuation, may be exhibited every day, whereby the cure is effectually established. And indeed

small doses given, even from the beginning, have been often found to have better effects in the cure of this disease than large ones. The only officinal preparation of this root is a tincture made in wine, which accordingly has now the appellation of *vinum ipecacuanhae*, both in the London and Edinburgh pharmacopœias. Ipecacuan, in the state of powder, is now advantageously employed in almost every disease in which vomiting is indicated ; and when combined with opium, under the form of the *pulvis sudorificus*, it furnishes the most useful and active sweating medicine which we possess. It is also given with advantage in very small doses, so as neither to operate by vomiting, purging, nor sweating. The full dose of the powder is a scruple or half a drachm, and double that in form of watery infusion. The full dose is recommended in the paroxysm of spasmodic asthma, and a dose of three or four grains every morning in habitual asthmatic indisposition. A dose of one-third or half grain rubbed with sugar, and given every four hours or oftener, is recommended in uterine haemorrhagy, cough, pleurisy, haemoptœ, &c., and has often been found highly serviceable. For a chemical account of the basis of this root see *EMETIC and CHEMISTRY*.

IPHICRATES, general of the Athenians, had that command conferred upon him at twenty years of age, and became famous for the exactness of his military discipline. He made war on the Thracians ; and restored Sentes, who was an ally of the Athenians ; attacked the Lacedemonians ; and, on many other occasions, gave signal proofs of his conduct and courage. Many ingenious repartees have been mentioned of this general : a man of good family, with no other merit than his nobility, reproaching him one day for the meanness of his birth, he replied, 'I shall be the first of my race, and thou the last of thine.' He died A. C. 380.

IPHIGENIA, daughter of Agamemnon and Clytemnestra. When the Greeks, going to the Trojan war, were detained by contrary winds at Aulis, they were informed by Calchas, that to appease the gods they must sacrifice Iphigenia, Agamemnon's daughter, to Diana. The father, who had provoked the goddess by killing her favorite stag, heard this with the greatest horror and indignation ; and, rather than shed the blood of his daughter, he commanded one of his heralds as chief of the Grecian forces, to order all the assembly to depart each to his respective home. Ulyssus and the other generals interfered, and Agamemnon consented to immolate his daughter for the common cause of Greece. As Iphigenia was tenderly loved by her mother, the Greeks sent for her on pretence of giving her in marriage to Achilles. Clytemnestra gladly permitted her departure, and Iphigenia came to Aulis. Here she saw the bloody preparations for the sacrifice. She implored the forgiveness and protection of her father ; but tears and intreaties were unavailing. Calchas took the knife in his hand ; and, as he was going to strike the fatal blow, Diana relented, caught away Iphigenia, who suddenly disappeared, and a goat of uncommon size and beauty was found in her place for the sacrifice. This supernatural change ani-

mated the Greeks, the wind suddenly became favorable, and the combined fleet set sail from Aulis.

IPOMOEA, quamoclit, or scarlet convolvulus: a genus of the monogynia order, and pentandria class of plants: natural order twenty-ninth, campanaceæ. cor. funnel-shaped: the stigma round-headed: caps. trilocular. There are several species; but the only one cultivated in our garden is the

I. *coccinea*. It has long, slender, twining stalks, rising upon supports six or seven feet high. The leaves are heart-shaped, pointed, and angulated at the base, and from the sides of the stalk and branches arise many slender foot-stalks; each supporting several large and beautiful funnel-shaped and scarlet flowers. There is a variety with orange-colored flowers. Both are annuals, rising from seed in spring, flowering in July and August, ripening their seeds in September and October, and totally perishing soon after. They are tender, and must be brought up in a hot-bed till the end of May, or beginning of June, when they may be planted out to adorn the borders, or in pots to move occasionally to any particular place; but, in either case, there must be sticks for them to twine upon.

IPSAMBUL, in antiquities, is the name of a celebrated temple excavated out of the solid rock on the banks of the Nile. The side of the river here is formed of sandstone rock in which this temple is cut. The bank runs in a steep ascent, from the river to the desert, until the sand becomes so high as to be on a level with the summit of the rock.

The sand drifting downwards, towards the river, had entered the temple and completely blocked up its entrance to many feet above the architrave, so as to conceal the greater part of the stupendous figures, of which a very considerable portion is now visible. The sand is now barred out by palm-trunks and large stones, but, unless some more effectual defence is provided, there is reason to fear that the curious traveller will not long be gratified with the sight of a superb monument, which till discovered by Salt in 1817 had remained concealed and buried probably for many ages. We owe the removal of the sand, the uncovering of the façade, and the entrance to the temple, to the exertions of Messrs. Belzoni and Beechey, employed for this purpose by the British consul Mr. Salt. The following account of this curious monument of antiquity is given by lieutenant-colonel Stratton, who visited it in 1820. The sand which drifts against the entrance, says colonel Stratton, is so fine as to resemble a fluid.—While we were ascending our footsteps occasioned such a current of it as to give us great reason to apprehend that the entrance would soon again be blocked up.

Commencing at the south end of the façade, there is a sloping projection of thirty feet. At four feet seven inches is the arm of the first colossal figure cut out of, and projecting from, the façade, between which and the figure there is a connecting block of three feet thick. These figures cannot be styled alto relievos; they are in fact statues; they measure twenty-five feet five inches across the shoulders, and four of them

occupy the façade, which measures 127 feet. The left shoulder of the first touches the right shoulder of the second, and so on. The rock is brownish and soft, and easily cut by the chisel. The part out of which the statues are formed is whitish, which adds to the effect. They are beautifully cut, and the proportions, notwithstanding their magnitude, and consequent want of models, are so perfectly just, that no feature predominates, and every part appears small, symmetrical, and graceful.

The statue to the north, or right hand of the portal, is visible to the elbow: that immediately to the left, or south of the door, is somewhat mutilated: the statue beyond it is visible to below the shoulder; while the second to the north is buried to nearly the forehead. The statues have the high mitred cap, with the serpent or good genius on the forehead. The nose, mouth, and chin, are of the most delicate proportions. The corners of the mouth, almost approaching a smile, give an expression of mildness, while the other features bear a character of firmness. The neck and shoulders are admirably formed, and the muscles of the chest and abdomen are in the happiest repose. The statues are supposed to be naked to the middle, where we perceive a handsome cincture in zigzag lines, and a dress beneath, striped perpendicularly.

Over the architrave of the portal, is an alto relievevo of Osiris Hierax, placed in a niche, and measuring twenty-three feet two inches. He holds in both hands the sacred tor, or crux ansata, and has a crown on his head: under his left hand is a female figure in alto relievevo, measuring five feet one inch; and under the right a staff, with a fox's head at the top. The deception, arising from the correctness of the proportions, is such, that these figures do not appear one-half of their real height,

Two heroes in sculpture, having the bird with expanded wings over them, present to Osiris, with one hand, a figure resembling a monkey, and hold up the other hand.

On the entablature are sculptured bulls, geese, hawks, grass-hoppers, anubis's, hieroglyphics, &c. &c. On the summit of the cornice are seated figures of monkeys, or possibly of typhons, indifferently executed. The cornice bears sculptures of serpents, surmounted by globes. From the cornice to the architrave, the space measures sixty-five feet: the height of the façade may be 100 feet.

We enter the temple through a small hole made in the sand, under the architrave, part of which has been chipped off to facilitate the entrance, which is much choked up by the sand. The façade, as well as the entrance and interior of the temple, are all cut out of the rock, and the great colossal figures, though projecting so considerably, form a part of the same rock.

The first chamber has eight square pillars resting on pedestals, which do not appear in the plan, but which are merely square projections, extending six inches or so beyond the pillars. Each of these pillars has on its front a large colossal statue of the same block with the pillar. These statues, which are about twenty-two feet high, have their arms crossed, holding the crooks

and flagellum : they wear the mitred cap, and are, in all respects, well formed ; the pupil of the eye is painted black ; and also the eye-brow, which, beyond the natural arch, is extended artificially by a straight line in black. They are naked to the ceinture, which is fastened by a clasp ; below it is a close-fitting dress, reaching nearly to the knee, bearing an ornament or pouch in front, not unlike that of the present Highlanders of Scotland. These statues are covered with stucco, painted in rich and variegated colors : their noses are slightly aquiline ; the under lip projects a little ; the corners of the mouth express a smile ; the chin is finely formed ; the eye large and full ; the eye-brow well arched ; and the face very handsome. The expression is serene and benignant, and they resemble much the Jupiter mansuetus of the Romans. The ceiling is painted in blue and red, having a rich border, with large expanded wings.

The paintings on the wall represent the hero in his car : he is in the act of discharging an arrow from his bow ; his aim is sure ; his mien determined ; he wears a helmeted cap ; his face and arms are naked ; and he has bracelets, armlets, and collar. His dress reaches below his knee : he has a girdle, and the reins are fastened round his body. On the side of the car, which is painted blue, yellow, and red, is a quiver. The horses in the car have their nostrils open. They are rampant, snorting, and covered with rich trappings, and plumes on their heads. They are stallions, with long tails, and their eyes partly covered with blinkers. They have no bits, but are restrained by a nose band. The hero is followed by three comparatively small chariots, each containing two persons, one of whom drives, while the other carries a bow, arrows, and a shield covered with a leopard's skin.

The hero and his people are in the act of storming a fortress, and the artist has seized the moment of surrender. The fortress consists of two stories. From the first we see some of the enemy tumbling headlong ; others transfixed with darts ; others at the base on their knees, with their bodies bent in supplication. One has a dart sticking under his eye ; another is pulling one from his head ; and many have their hands raised in token of surrender.

In a second row are placed the old men, as being unfit for the first ranks : their countenances are impressed with grief and despair, and their hands are raised. In the upper story, two men hold out a censer of burning incense, and behind are two females suppliantly mercy with extended hands,—but the unerring darts of the hero have already transfixed them.

Under the walls is seen a peasant running away, and casting a scared look behind him. He is endeavouring to drive before him five oxen, who, in scampering off, seem, by their tails flying in the air, to participate in the general panic.

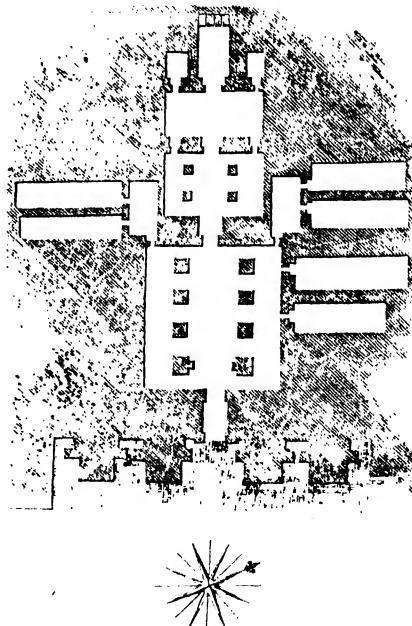
The hero appears transfixing with a spear a prisoner of distinction, trampling others under foot, holding a number by the hair of the head with his left hand, while he prepares to strike off their heads with the right. A mulatto is seen, driving before him a group of prisoners, four of whom are black, four tawny, and four white.

The features are characteristic of the different climates, and show that the conquests of the hero had extended over various parts of the globe.

From the different dimensions of the figures, we may infer that the ancient Egyptians expressed strength and power by comparative size. Thus, the hero is immensely colossal, the chief of the enemy is very large, and the person who conducts the prisoners is large, while the prisoners themselves are pygmies.

On another wall, the hero, grateful for his victories, makes offerings to a male deity painted black ; and to Isis Lunata he offers incense, in token of his farther gratitude to Osiris Hierax. On the adjoining wall are rejoicings, chariot races, processions, &c. The hero and his people are distinguished from the enemy by the difference of costume, of chariots, of shields, &c. The hero is throughout a portrait, though his dresses are various. Sometimes he has the short warlike dress and helmet, and at other times the long loose robe of ceremony, and high cap.

On another panel we observed a chariot fight. The horses appear tumbling and confounded with men. Some horses are struck in the chest, others in the head, writhing in pain,—the equi exanimis ;—seven chariots on each side, two men and two horses to each. These representations are followed by presentations to Priapus, who is painted black. The hero is ultimately received among the gods, Osiris, Sothis, Isis Lunata, &c., and this apotheosis is represented both in statuary and in painting. Annexed is a ground plan of this noble temple :



IPSWICH, the capital of the county of Suffolk, in England. Its name comes from the Saxon Gippewic, being situated where the river Gipping empties itself into the Orwell. It is a

town of considerable antiquity, and was twice plundered by the Danes in 991 and 1000. It had the privilege of a mint in the time of the Saxon heptarchy, and had several charters granted to it, the first by king John, and the last by Charles II. It is celebrated as being the birth place of cardinal Wolsey. It has twelve churches, several meeting houses, a town hall, an excellent market, a hall for county sessions, a free school founded in the time of queen Elizabeth, and several charity schools. It has a market on Wednesdays and Saturdays, and five chartered fairs for cattle, &c. It had formerly a considerable manufactory for baize, which has long since been discontinued. Its chief trade is in corn, which is exported to London, Liverpool, &c., and in foreign timber. It is governed by a high steward, a recorder, two bailiffs, twelve portmen, two coroners, a town clerk, and twenty-four common-council-men; sends two representatives to parliament, and gives the title of viscount to the duke of Grafton.

IQUIEQUIUY, or Iquique, an island in the Pacific Ocean, near the coast of Peru, about a mile in circumference, situated in a small gulf, which affords shelter for vessels, but no fresh water. It is inhabited by Indians and slaves belonging to the Spaniards, who are employed in collecting a yellow earth, formed by the dung of birds, as manure for vines, and with which eight or ten ships have been loaded annually for a century. S. lat 20° 20'.

IQUISENQUI, one of the islands of Japan, situated near the south-east coast of the island of Ximo. This island is very small. Lat. 32° N., long 132° 40' E.

IRAK, the most extensive province of Persia, occupying the greater part of the ancient Media, is bounded on the south by Fars and Khuzistau, on the east by Khorassan and the Great Salt desert, on the west by Kurdistan, and on the north by Azerbaijan, Ghilan, and Mazanderan. It is chiefly covered with chains of barren mountains, separated from each other by long valleys about ten or twelve miles in breadth. They are generally devoid of any timber, and even the valleys are for the most part uncultivated. The land is, perhaps, in general good, and capable of yielding corn; but want of security of property, and a deficiency of population, have been the causes of the present desolate appearance of these plains. It is divided into five districts, i. e. Ispahan, Tebraun, Naen, Mullager, and Kermanshaw.

IRASCIBLE, adj. Lat. *ira*, *irascibilis*.
IRE', n. s. Partaking of the nature
IREFUL, adj. of anger: ire, anger
IREFULLY, adv. self; rage; passion: ire-
I'ROUS, adj. ful, raging; furious: ire-
fully, in a wrathful manner: irous, angry; wrath-
ful. An old word.

I could say of ire so mochel sorwe,
My tale shulde lasten til to morwe;
And therfore pray I God both day and night,
An irous man God send him litel might.
It is gret harm, and cestes gret pitee,
To sette an irous man in high degree.

Chaucer. *The Somponours Tale.*

The *ireful* bastard Orleans, that drew blood
From thee, my boy, I soon encountered.

Shakspeare.

By many hands your father was subdued;
But only slaughtered by the *ireful* arm
Of unrelenting Clifford. *Id. Henry VI.*

If I digged up thy forefathers graves,
And hung their rotten coffins up in chains,
I could not slake mine *ire*, nor ease my heart.
Id.
There learned this maid of arms the *ireful* guise.
Fairfax.

The sentence from thy head removed, may light
On me, sole cause to thee of all this woe;
Me! me I only just object of his *ire*. *Milton.*

Or Neptune's *ire*, or Juno's, that so long
Perplexed the Greek and Cytherea's son. *Id.*

Heard you not late, with what loud trumpets'
sound,
Her breath awaked her father's sleeping *ire*? *Fletcher. Purple Island.*

The *irascible* passions follow the temper of the
heart, and the concupiscent distractions on the
crisis of the liver. *Browne.*

She liked not his desire;
Fain would be free, but dreaded parents' *ire*.
Sidney.

For this the avenging power employs his darts,
And empties all his quiver in our hearts:
Thus will persist, relentless in his *ire*,
Till the fair slave be rendered to his sire. *Dryden.*

We are here in the country surrounded with bles-
sings and pleasures, without any occasion of ex-
ercising our *irascible* faculties. *Digby to Pope.*

I know more than one instance of *irascible* passions
subdued by a vegetable diet. *Arbuthnot on Aliments.*

IRASCIBLE, in the old philosophy, was applied
to an appetite of the soul, where anger, and the
other passions which animate us against things
difficult or odious, were supposed to reside. Of
the eleven kinds of passions attributed to the
soul, philosophers ascribe five to the irascible
appetite, viz. wrath, boldness, fear, hope, and
despair; the other six are charged on the con-
cupiscent appetite, viz. pleasure, pain, desire,
aversion, love, and hatred. Plato divided the soul
into three parts; the reasonable, irascible, and
concupiscent parts. The last two, according
to that philosopher, are the corporeal and mortal
parts of the soul, which give rise to our passions.
He fixed the seat of the irascible appetite in the
heart, and of the concupiscent in the liver, as
the two sources of blood and spirits, which alone
affect the mind.

IRBIT, or IRBITSKAYA, a town of Russia, in
the government of Perm, on the river Irbit, and
the frontiers of Siberia. It contains about 3400
inhabitants, and is noted for a yearly market
held in January, the season for travelling on the
ice, and frequented not only by Russians and
Siberians, but by Tartars, Armenians, and Greeks.
This town is consequently an entrepot for Sibe-
rian furs, and other Asiatic merchandise passing
into Europe. Near it is a large iron-work,
which yields nearly 2000 tons of iron a year.
142 miles north-east of Ekaterinenburg. Long
62° 50' E., lat. 57° 35' N.

IRELAND.

IRELAND, the second in magnitude of the British Isles, is situated to the west of Great Britain, in the Atlantic Ocean. It is bounded on the north-west and south by the Atlantic, and on the east by the North Channel, the Irish Sea, and St. George's Channel, which separate it from England. Its greatest length, i. e. from Fair-Head in the north, to Mizen-Head in the south, measures about 300 miles, and its maximum breadth, which is between Carnsore in Wexford, and Emlagh Rash, in Mayo, about 110 miles. The superficial contents are said to amount to 19,436,000 English acres, but this rests solely on the authority of Dr. Beauford, who derived the amount principally from a measurement of the county maps—documents, with few exceptions, lamentably incorrect: of some counties, indeed, no maps whatever have yet been published. Mr. Wakefield's return of the acreable contents of Ireland must be even more inaccurate; for, since he differs from Dr. Beauford, he must have departed from his mode of forming an estimate, and there was no other except by an actual survey, which it is needless to say he did not execute.

The eastern coast is but little indented with harbours; but the south and west possess many sinuosities, affording numerous basins fit for the reception and safe-accommodation of shipping. The cove of Cork is quite unrivalled as a natural asylum; Bantry Bay, the Killeries, and others on the west, are almost equally safe and sheltered; while Loughs Swilly and Foyle, on the north, though not perfectly free from danger, afford great commercial advantages, and are valuable auxiliaries to extensive inland navigation.

Such are the superficies and general character of the coast of the island, but a more minute detail of the topography and present state of Ireland, will be found at the close of this article, as well as some suggestions for rendering its natural resources available for the amelioration of the present depressed condition of its peasantry.

PART I.

THE HISTORY OF IRELAND.

The history of Ireland may be divided into the four following periods:—the first, or remote part, called the Scythian; the second, or Milesian; the third, or Christian era; and the fourth, or since the English invasion.

1. *Of the Scythian era of Irish history.*—The Irish are attached, like other nations, to that dignity which belongs to antiquity: its venerated name for them, appears to possess qualities of a peculiarly attractive character, and it is to this fondness and devotion to the preservation and recovery of their ancient records, that the distrust of foreign historians in Irish chronicles is perhaps attributable. Zeal to restore, and anxiety to obtain belief, have excited a suspicion which the foreigner does not care to take the trouble of removing. The early history of Ireland is not more deeply sunk in uncertainty, or more intimately involved in fable and romance, than other early records. The history of ancient Greece is

a tissue of absurdities; the story of ancient Rome consists of a series of agreeable fables—tales suited to the anxiously inquisitive ear of infancy. But these initial fictions do not appear to have cast discredit on the subsequent pages of these histories—the chaff has been separated from the wheat—the dross from the pure metal—by the discernment of the classical writer; and his judgment has been exercised in the appropriation of his belief. This principle is a wise and necessary one—one which must always be admitted when the objects to be described are separated from us, not by centuries of time only but by millenia; when records have become illegible, unintelligible, or obsolete; when they have been carried away by the literary spoiler, or, from the perishable nature of their materials, have yielded to decay. Ireland still boasts the possession of her bardic records, the psalters of her great religious institutions, the traditions of her children, and her perdurable monuments of stone, all which exhibit to the inquiring eye living testimony of her ancient learning, sanctity, and civilisation. These internal evidences are supported and confirmed by the concurrent testimony of accredited historians in all cases where collateral testimony can be expected.

This being admitted, we at least place the ancient Irish history upon as sound and as solid a pedestal, as the historians of other countries have raised for the fabled deities of their early ages: and the following sketch is submitted as an abbreviation of its earlier records.

From Magog, the son of Japhet, the son of Noah (though after an interval of several generations), was sprung Phenius, who became king of one of the Scythians, and was a contemporary of the lawgiver Moses. The sons of Magog are not named by Moses, but Josephus (who acknowledges this fact) calls the Phenicians Magogians, adding, that they styled themselves Scythians. The Spanish authorities place the Irish Scythians between the Caspian and Euxine seas (probably in the ancient Iberia); but, as there were upwards of fifty districts bearing the appellation of Scythia, an attempt at local accuracy, in this instance, would be vain. Sir Walter Raleigh has, satisfactorily enough, pointed out the country of the Magogians, which he places on the northern boundary of the present Phœnicia. So, also, Ezekiel, chap. xxxviii., fully refutes the Spanish antiquarians, as far as relates to the exact position which they have assigned to the Irish Scythians. Josephus, again, seems disposed to establish the Magogians in a country still more northerly, and assures us, that Tyre was actually founded by Tyras, the brother of Magog, in the country since denominated Phœnicia; and that, subsequently, upon the migration, or flight, of the Erythreans, and their reception in this country, it received the name of Phœnicia, which, in the Scythian tongue, is synonymous with Erythrea. Some, however, derive this name from φοινικης, palm trees, with which that province abounded; while others think the origin of the title to have been Phœnix, the brother of

Cadmus, and king of that country. Our theory, which is not contradictory, bestows the honor of the nomination upon Phenius (in all probability identical with Phœnix), the reigning monarch, at the period of the emigration of the ancestors of the ancient Irish. These facts, then, would fix the date of the Phœnician wanderers about two generations antecedent to the age of Moses. Niul is said to have conducted the first colony of emigrants; who, passing over into Egypt, planted his followers on the borders of the Red Sea, where they are known to have dwelt at the time of the crossing of the Israelites. In this statement the Irish records are supported by the concurrent testimony of the rabbi Simon. After no long residence in this position, the Phœnician colonists were expelled by Caperchiroth, the grandson of Pharaoh, upon which they returned to the mother country; but, a spirit of wandering having now possessed them, they resolved upon once more seeking their fortunes, and sailed to Gades, in Spain, where they were permitted to possess themselves of a maritime position. Hence their posterity embarked for Ireland, of which country these emigrants have for ; enjoye the merit of being the discoverers.

Now to establish, in some degree, our delineation of this very remote period of history, the following observations may be advanced with tolerable confidence. In the first place there exists the negative argument, viz. that this statement is not contradicted by the authentic or accredited records of other countries: next, the few Phœnician annals, that do exist could hardly be expected to contain matter so remote in time, and so long disconnected with their own history, nothing but a few fragments being preserved, which Josephus, Theophilus, and Sanchoniatho have collected. But, besides this, positive proof exists, that Ireland was not unknown, by name at least, to the ancient Greeks in the works of their earliest writers, Orpheus, Herodotus, and Aristotle, &c. Nor should this very early acquaintance with Ireland on their part excite surprise, when it is recollectcd that the Greeks had this knowledge from the Phœnicians. The primeval mariners are supposed to have confined their nautical skill, like a secret charm of which they would envy others the possession, to their own countrymen solely: and, passing by Greece and other countries extended their voyages into the great Atlantic, and so reached the island of Ireland.

Here they were induced to plant a colony, being attracted by the rich mines of lead and copper which they discovered and worked. The first who is represented as having brought lead from Ireland was Midicratus, which Bochart, and after him Sir Isaac Newton, thinks should be written Melicartus, the Phœnician Hercules. From him then could Orpheus, and the Grecians, have heard the name of Ireland. It has been said that the first Irish colonists were Carthaginians and not Phœnicians. But, had the former ever visited Ireland, the recollection of its existence would have been preserved, either by history or tradition, by which the Romans would have obtained the knowledge of it: whereas we know that, until the time of Julius Caesar, the

existence of such a country was a circumstance totally unknown to the Romans, although the Greeks, as we have shown, wrote its name 500 years before. It is true the old Irish language is very similar to the Carthaginian, as is plain from the well-known passages in the *Himileo* of Plautus; but Carthage herself was but a daughter of Phœnicia. Had the Carthaginians colonised Ireland, that colonisation would have been of a date much later than we have shown: it has therefore with much probability been concluded, that the existing reliques of eastern antiquity in Ireland are, though resembling the Carthaginian, wholly and purely of Phœnician origin; for instance the brazen swords, found in the Irish bogs, which are precisely similar to the swords of the Carthaginians found in the field of Cannæ, and now preserved in the British Museum. The letters, language, and customs of the ancient Irish were doubtless Phœnician. The Phœnician letters or characters are found in the ancient Irish MSS. The identity of the languages has been established for us by Plautus; and the Irish Druids used an alphabet, called the 'Boboloth Character, exactly resembling the Phœnician, Egyptian, and Carthaginian letters. The ancient Irish too had a sacred character called Agharn, the existence of which is proved by the stone pillars scattered on the face of the kingdom, bearing inscriptions in that letter, resembling the character now found in the ruins of Persepolis.

To return to our narrative:—The Partholani landed in Ireland A.M. 1956, and after a reign of thirty years left the government to their posterity, who maintained it for 300 years after. To the descendants of the Partholani succeeded the Neimhedians, of the family of the Partholani; a colony from Greece, who landing in Ireland, and suffering great difficulties, most of them were compelled to abandon it again; the remnants of these invaders, however, possessed some authority for upwards of two centuries. These again were succeeded by the Fir-bolgs, or Bogmen, a sort of Helotes, descended from the expelled Neimhedians, who had returned to Greece. After a reign of about half a century the Bolgian or Fir-bolgian government terminated with the death of Eochaidh, who had been united in marriage to Tailte, a royal princess of Spain. In the tenth year of the reign of the last prince, and A.M. 2541, the tranquillity of the island was disturbed by a new set of adventurers, called Damnonii, or 'Tuatha de Danons.' These intruders were also descended from the race of Neimhedius, and had, like the Fir-bolgs, been enduring a life of much slavery in Greece. These Damnonii expelled the Fir-bolgs (who fled for shelter to the islands of Arran and the Hebrides), and assumed the government in their stead, ruling unmolested for nearly two centuries, when they in turn were driven out by the sons of Milesius, who ruled, as the Chronicles say, with great glory for 2400 years, giving Ireland 171 princes. The name Tuath-de-danan, appears to be derived from Tuath, a lord: Dee, God: and Dan, a hymn: for these people were divided into three classes, the nobility, the priests or Druids, and the people who chanted the praises of the Supreme. .

These foreigners, who passed some time also in Denmark (whence possibly another reason for their name may be derived), are supposed to have introduced thence Druidism, and some learning into Ireland: they also brought with them the famous Liagh Fail, or stone of destiny, on which all succeeding kings of that race were crowned. Fergus the Great borrowed the Liagh Fail to be crowned on, after his invasion of North Britain; and, being deposited in the abbey of Scone, it continued there until the reign of Edward I., who had it conveyed to Westminster Abbey, where it is now placed beneath the inauguration chair, having its name changed for that of ‘Jacob’s stone.’ Its value appears to rest upon the destiny contained in a very ancient Scythian or Irish verse, the purport of which is, ‘that where the Stone of Destiny is preserved, there a prince of the Irish race should govern.’ Toland calls this ‘the ancientst respected monument in the world.’ See our article CORONATION.

2. Ith, a Milesian prince, descended from Phenius, whose history has been already given, sailing from Galicia in Spain, landed near Derry, in the north of Ireland. Understanding that the governors of the Damnonians were at variance, he undertook to arbitrate, and mediated satisfactorily and successfully. This introduction afforded him so great an insight into the condition and resources of the kingdom, that the Damnonian prince resolved to cut him off, on his way back to his ship, apprehensive of a second descent, accompanied by a more powerful armament. In this design they had nearly succeeded, Ith not escaping to his vessel until he had received a mortal wound. The treacherous conduct of the Damnonian chiefs, strengthened by the prospect of new conquests, soon raised up a numerous body of avenging warriors, amongst the Milesian kindred of the departed prince, Ith. An expedition was now prepared, of which the sons of Milesius were to be the conductors; of this the chief commanders were Heber, Heremon, and Amerghin.

The first descent was made on the coast of Kerry, by Heber, while Heremon agreed to sail round by the coast of Leinster, and so distract and divide the efforts of the invaded. Having disembarked their forces, Amerghin, one of the sons of Milesius, went in person to the king of the Tuatha-de-Danans, and demanded compensation for the treacherous murder of his kinsman. The result of this negociation was rather singular: the king of the Damnonians complained of dishonorable conduct, on the part of the Milesians, in so sudden and unexpected an invasion, and in presenting a challenge to battle, without allowing him time for preparation. The Milesians, acknowledging the justice of his complaint, are said to have consented to re-embark, and attempt a second landing; which if they should be able to effect, the invasion would be acknowledged equitable, and then the Damnonians would submit or oppose, as seemed to them most advisable. The Milesians withdrew to their ships, and cleared out to sea, once more: but, a violent storm ensuing, many of their galleys suffered shipwreck, and five of the sons of Milesius perished in the calamity.

Ir, from whom the name Ireland is said to be deduced, was cast away on the coast of Desmond, and all his retinue lost. Notwithstanding these dreadful misfortunes, misfortunes consequent upon a chivalrous spirit of honorable warfare, Heber accomplished a second landing at Bantry Bay, and Heremon and his squadron happily secured their disembarkation at Colpa Inbher, now Drogheda, on the coast of Leinster. Having accomplished a safe landing, Heber engaged the Damnonians, in a bloody conflict, at a place called Sliebh-mis, in which he was completely successful, and then, directing his march eastward, united his forces with those of Heremon at Colpa Inbher. The Milesian princes now strengthened in numbers, sent a deputation to Cearmada, to desire the surrender of his territories, or bring the contest to the decision of the sword: the latter alternative was immediately embraced, and the opposing armies met in the plain of Tailten in Meath. The Milesians animated by their recent conquests, anxious for the enjoyment of possessions now almost within their grasp, and encouraged by the presence and example of their courageous princes, rushed eagerly to the onset. The Damnonians, on the other hand, had all those innate causes of excitation in which country, prosperity, domestic happiness, and life itself are involved. Under the influence of such motives, with equal courage, nearly equal numbers, but unequal military skill, these two great armies hurried forward to decide the fate of a great kingdom. An obstinate and death-dealing scene succeeded, for many hours; at length the destiny of Ireland, like that of ancient Rome, hung upon the swords of three royal princes engaged on either side. The Milesians’ fortune still attended them, and the three sons of king Cearmada fell by the swords of Heber, Heremon, and Amerghin.

Heber and Heremon, now seated on the throne, gave a race of 171 kings to Ireland. Imitating, or infected by, the example of their founders, they did not long continue to rule in amity. The Milesian kings always held the sceptre with a blood-stained hand, few of their line either dying a natural death, or enjoying a peaceful reign: deposition and assassination mark the progress of their government for nearly 2000 years. But amidst this sanguinary history some peaceful reigns and salutary examples are to be found. The first great man deserving of particular historic notice is Ollam Fodhla, of the race of Ir, a man distinguished by many amiable qualities, above all, by his wisdom and learning. He collected the ancient records of his country, and drew up many wise and necessary laws. The gentle character of his reign resembled that of Numa; and he was considered the Solon of his age. He is said to have introduced armorial bearings on the chieftains’ shields, and to have instituted the celebrated triennial meeting of the Irish kings and princes, at Teamor or Tarah, for the establishment of laws, and regulation of government. From the decease of Ollam Fodhla to the accession of Kimbach and Macha, an interval of 260 years, history furnishes little more than a genealogical table of thirty-one kings, most of whom were cut off by violent

deaths, and their thrones usurped by the assassins. Kimbach is acknowledged to have possessed considerable abilities for governing: he revived the laws and regulations of Ollam Fodhla, which had for some time lain dormant, and built a splendid palace in Eamania near Armagh. He died a natural death, and left his queen Macha in peaceable possession of the government. Ireland was then divided into five dynasties, four of which usually conspired to harass and oppose the best efforts of the fifth. Hugony, an immediate successor to Kimbach, who still acted the part of a reformer in morals, to break their coalition, divided the island into twenty-five districts, and bound each by a solemn oath not to accept a governor unless of his own family. Nor were these bonds of sufficient strength; for, not only did Hugony perish by the hand of an assassin, but for ages after his successors, without one exception, were removed by violent deaths. About a century previous to the Christian era, the pentarchical form of government was restored, which was attended by a political revolution of much importance. The Fileas, or Irish Bards, had for ages been the guardians, interpreters, and dispensers of the law. Their honors were considerable, their numbers burdensome, and, from too much indulgence, they became abusers of their trust and power. The result of this abuse was naturally a resistance on the part of the governed, and to such a pitch of violence was the popular opposition urged, that nothing short of the total extermination of the order of Fileas could satisfy the rage of party. In this extremity the order turned their attention to the only power able or disposed to shield them; this was Concavar Mac-Nessa. Nor was their application vain, for he undertook to procure their pardon, upon a solemn pledge from them of future amendment. He caused the wisest and most learned of their body to be assembled, and to them he entrusted the task of compiling a clear and equitable code of laws: these, disengaged from the studied technicality in which the Fileas had formerly involved the statutes, were hailed with joy by the multitude, and called, in the enthusiasm consequent upon their liberation from the thralldom of Fileasim, the celestial decisions. Again the page of our history is stained with sanguinary deeds of the blackest dye, until the times of Crimthan, the history of whose achievements is another bright spot in the clouded sky. He it was, the terror of whose name defended his country from a Roman invasion; and from him the Picts derived that assistance which enabled them to make many and successful irruptions into the Roman province. Upon the decease of that monarch, the Milesian line of Heremon was suspended, and the ancient Firbolgs, now grown powerful and factious, seized the reins of government, and placed a king, from their own race, upon the Irish throne. This was the occasion of the servile commotion usually called the plebeian or Attacotic war. This usurpation, which was but of short continuance, was interrupted by Tuathal, a prince of Milesian blood, who had gathered some auxiliaries amongst the Picts of North Britain, ancient allies of his family, and

returned to vindicate the honor and recover the throne of his ancestors.

Being seated on the throne of his father he restored their institutions, assembled the states at Tarah, where his supremacy was acknowledged; selected Meath for the chief royal appanage; and instituted games, of a character resembling the ancient Olympian. Here the happiness and prosperity of Tuathal's government were interrupted by a circumstance remarkable for its baseness, perfidy, and infamy. The king of Leinster had, some time before, espoused a daughter of the monarch Tuathal; but, conceiving an unlawful passion for her sister, he concealed his queen, and represented himself, at the monarch's court, as a widower and suitor of the surviving princess. This base design he unluckily effected, and returned with his bride to his palace in Leinster, where the two princesses, shortly after, accidentally met each other. The consequence may readily be conceived; grief and treachery broke their hearts. Tuathal, enraged at the perfidy of his son-in-law, invaded Leinster, and stayed his desolating sword, only upon the concession of a grievous tribute, to which the Lagenians were necessitated to submit. This tax, called the Boromaean tribute, was the foundation of all the civil discords and distractions that rent the land, and shook it to its centre for ages after. It was in resisting this oppressive tribute that Conn, of the hundred battles, won all his fame, and lost for a season all his possessions: this great warrior was assassinated by a band of ruffians, habited as females. Cormac Mac Conn, the grandson of Conn of the hundred battles, is celebrated as the most illustrious of all the Pagan kings, both in respect to the splendor of his court and the glory of his arms, for the latter of which he is indebted to his general, the heroic Fian Mac Cumhal, father of Ossian the celebrated Irish bard. The fate of many succeeding monarchs, who are acknowledged to have possessed considerable talents and learning, is of the most deplorable character. Crimthan, who invaded Gaul and Britain, was destroyed by poison: and the brave Nial of the nine hostages, who had with so much spirit supported the Albanian Dal-raidans, and carried his victorious arms into Armorica, fell by the hand of an assassin. Dathyl, his successor, and the last of the Pagan line, was permitted to enjoy a long and peaceful reign, till at length, embarking in foreign wars, he was killed by lightning at the foot of the Alps.

3. To Nial succeeded Laogry, in whose reign Christianity is said to have been established in Ireland by St. Patrick, although it had been introduced there before this time. Palladius appears to have preceded St. Patrick, and to have founded three religious houses in Leinster. But for the latter was reserved the great honor of converting the whole kingdom to the Christian faith. Patrick had been carried from Armorica into Ireland at the age of sixteen years, by king Nial, along with 200 captives, and by this means had an opportunity of obtaining a knowledge of that country, which must have proved, in the highest degree, auxiliary to his subsequent labors there. Upon his second visit to Ireland he met with

but little opposition from the Druids, for that wily order of men had been brought into contempt by the philosophic monarch Cormac Mac-Conn, who taught his subjects to despise paganism. St. Patrick converted the king and court at Tarah, founded various bishopries, was submitted to, and acknowledged primate, by the Romish clergy, and acted, in all respects, as patron and patriarch of his own church, without admitting any interference from the pope. The Irish church continued on this independent ground, consecrating their own bishops, and appointing no arch-bishops, for 700 years, until Eugenius III., A.D. 1511, sent four bulls into Ireland. St. Patrick afterwards visited Rome; and, returning, died on his way to Armagh, and was interred at Downpatrick, in the county of Down.

Laogary, the monarch of Ireland, was continually engaged in wars, endeavouring to resist and obliterate the Boromœan tribute; but he was subjected to many and great vicissitudes, and tarnished his new title of Christian king by the violation of a treaty which he had taken a solemn oath to observe. After an interval of about half a century, Hugh, of the Heremonian line, ascended the throne, and reigned twenty-seven years. This prince had resolved upon redressing many abuses, and, for that purpose, called an assembly at Dromkeat: his first intention was, either to reduce and limit the number of Fileas or Bards, or to banish them totally from the kingdom. But, at the intercession of St. Columb-Kill, the latter part of his purpose was abandoned, and the number of the Fileas reduced. This wise prince fell, like many of his predecessors, in asserting his claim to the Boromœan tribute. About the year 800, in the reign of Hugh the Vth, the Danes, with a great fleet, made descents upon various parts of the Irish coast, whose example was quickly imitated by the Norwegians. Their attempts met much and spirited opposition, until at last Turgesius, a Norwegian prince, with a large fleet, arriving in Ireland, was joined by the different parties of Danes and Norwegians, who had secured themselves on the island, and laid the foundation of many years of slavery and subjection to a savage yoke.

A.D. 833, when Nial reigned, the Normans arrived with two great fleets, one of which entered the river Boyne, and the other the river Liffey. These intruders excited the active jealousy of the Danes, by whom, shortly after, they were completely expelled the kingdom, the Irish continuing passive spectators of their sanguinary conflicts. After twelve years of inactivity the Irish kings began once more to assert their prerogative, while the Danes continued to call Furgesius monarch of Ireland. Many engagements took place between them, and with alternating success. The Danes, however, fortified several towns, kept possession of the sea coast, and destroyed all remnants of civilisation and learning on which they could lay their ferocious and barbarous hands. At this period an accident liberated the Irish for a time from the dominion of their savage invaders. Furgesius having built a palace near to that of Malachy, king of

Meath, and paying occasional visits of ceremony to that prince, became violently enamoured of one of the young princesses. Malachy, having observed his growing passion, resolved to convert this accident into an opportunity of liberating his country. The barbarous Dane's proposal to have the princess granted to him, not as a wife, but a mistress, was received by Malachy with all the appearance of an honor conferred, rather than of an indignity offered to him, and a day was appointed when the beautiful young princess, accompanied by fifteen female attendants, was to be delivered up to him and his retinue. Furgesius had prepared his banquet hall, with becoming elegance, to receive the tender charge, and admission was accordingly forbidden to all his household, except to his fifteen companions, who were to be presented to the Irish maids, the attendants of the princess. The party were but just seated at the table, when the Dane perceived the stratagem that had been adopted, but too late, for the supposed maidens rose at a signal, and with the strength of manhood, augmented by a deep-seated spirit of vengeance, plunged their daggers in the hearts of the unhappy Danes. Furgesius was reserved for the more perfect gratification of Malachy's revenge.

A short time only, however, was Ireland freed from this barbarous tribe, both Danes and Norwegians returning again before the death of Malachy; but they never recovered their former strength in that country. About this time, A.D. 900, flourished Coomac Mac Cuillenar, surnamed the Holy, king of Munster, and archbishop of Cashell; who, despite his sacred character, embroiled his country in civil wars, and fell, afterwards, in the field of battle, where a prophecy had warned him not to appear. Nial the IVth was king of Ireland when the Danes recovered their wonted ferocity, and acquired great accession to their strength under the dominion of Sitric, the Danish king of Dublin. This king, possessed of both courage and treachery, contrived to ensnare Callaghan, prince of Munster, into his power; and, not being able to induce that proud monarch to resign his chief towns into his hands, detained him captive. This treacherous conduct called the Irish once more into arms against the Danes. The battle of Dundalk, in which the king of Desmond, king Sitric's brother, and Sitric himself, fell; the last of whom Fingal, seizing in his arms, leaped with him into the sea, where they both perished. Callaghan was thus restored to his crown; and, though he lived and reigned in troubles and calamities, he descended to his grave full of years and honors.

About the year 950, when Congall II. was monarch of Ireland, Brian Boiromhe, succeeded his brother Mahon in the crown of Munster, reduced the Irish Danes to obedience, and nearly extermimated the Danes themselves. The Irish nobles, reflecting upon the services rendered to Ireland by the exploits of Brian, required Malachy II., who then held the sceptre of Ireland, to resign it to that brave hero. To this proposition Malachy consented, and Brian Boiromhe was proclaimed sovereign, and crowned

at Tarah, amidst the acclamations of the Irish nation. Once more we find the Danes infesting the coast of Ireland, being invited thither by a traitorous and dastardly prince; but, the battle of Clonstarf, in which fell the Danish king, and Mortough the Irish general and son of Brian, and where Brian himself lost his life, finally terminated the power of the Danes in Ireland. Upon the death of Brian, Donagh, his son, returned with his brave band into Munster, and Malachy II., the deposed monarch, resumed the reins of government. Civil broils, which for so many ages wasted the Island, proved too strong for Donagh; and, retiring to Rome, he laid his crown at the pope's feet, assumed a religious habit, and retired to the abbey of St. Stephen. To Malachy succeeded two rival princes, one the great grandson of the brave Brian Boiromhe, the other Donald, of the Heremonian line; their claims were at length adjusted by that partition of the kingdom called Leith Conn, and Leith Maghall. After some years Roderic O'Connor, king of Connaught, was crowned with much pomp in Dublin, and exhibited proofs of ability for government; but the Irish were not in a condition to be ruled by wisdom, unassisted by strength, so his ordinances did not prove very effective.

At this period there were five sovereignties in Ireland, those of Munster, Leinster, Meath, Ulster, and Connaught; the Irish were fully converted to Christianity, but had never recognised the authority of the see of Rome. In the year 1156, therefore, Adrian granted a bull to Henry II. for the total subjugation of Ireland, and a reduction of the authority of the Romish church, imposing an obligation of one penny per house, for the support of that see: but continental negotiations occupied Henry so much, that this bull was neglected, and he awaited a more favorable moment for bringing the Irish under the English yoke.

4. Ireland since the English invasion.—A licentious tyrant, Dermot Macmorrogh, king of Leinster, had now conceived an unlawful passion for Donergilda, the wife of Ororic, king of Breffing; taking advantage of that prince's absence, he invaded his palace, and carried his queen away. This act of infamy called all the latent dislike of the Irish into light; and Ororic, assisted by Roderic of Connaught, invaded Macmorrogh's territories, and drove him from his kingdom. The exiled prince applied to Henry II., then at Guienne, for aid in recovering his kingdom, which henceforward he consented to hold in vassalage to the English crown. Henry, then unable to assist him farther, granted letters patent, empowering all his subjects to aid the Irish exile in the recovery of his dominions. Reaching Bristol, Dermot at length formed a treaty with Richard, surnamed Strongbow, earl of Strigul, and of the house of Clare; the conditions of which were, that Strongbow should espouse Eva, Dermot's daughter, and be declared heir to all his dominions. He also engaged Fitz-Stephen, constable of Aberdovey, and Maurice Fitzgerald of Wales, in his cause. Fitz-Stephen was the first who landed in Ireland, with 300 men, to whom Fitzgerald, with 100, soon succeeded. These so far assisted Dermot as to place him once again upon his throne. Having

recovered with his ancient dignity his former in solence, Dermot cast his eyes towards the crown of Connaught. And, to further this object, sent his ambassador to remind Strongbow of his former treaty, and to offer him additional inducements. Strongbow had been preceded by one of his retinue, Raymond, who, with a small band, landed near Waterford, and, proceeding to Dublin, made himself master of that place. But the earl himself now fulfilled his promise, by celebrating his nuptials with Eva; and, Dermot dying shortly after, he succeeded without opposition to the crown of Leinster, of which, after some severe engagements with the king of Connaught, he was able to keep the possession.

Henry, who had been a silent observer of Strongbow's successes, now thought it full time to demand his submission, and, accordingly, landing in Ireland with 500 knights, he received the homage of his new subjects, bestowed some lands on the English adventurers, and appointed Strongbow seneschal of Ireland. By these mere ceremonies, important in their consequences, was Ireland annexed to the crown of England.

The government of Ireland was now settled by Henry upon a more definite and satisfactory footing: shires or counties were introduced, and a chief governor was appointed. But Strongbow had much to encounter in his new government, from the machinations of his enemies at court, and the eternal and harassing opposition of Roderic, king of Connaught, aided by Donald Cavanagh, son of the late king of Leinster. It was at this season that he recalled Raymond from Wales to assist in the command of the army, and gave him his sister, the lady Basilia, in marriage, besides extensive lands in Ireland, as a dower. The king of Connaught, appearing in the field shortly after, was routed by Raymond, with great loss, and Donald Cavanagh was slain, while Thomond, who made a brave defence, was besieged in Limerick and obliged to fly.

Roderic, finding the faithlessness of his countrymen as allies, applied to king Henry, at Windsor, for leave to do homage for his kingdom of Connaught; and king Henry's jealousy was now excited by the coalition of his English barons in Ireland. We have already seen how Raymond and earl Richard became connected: Mountmorus at this time married the daughter of Fitzgerald and cousin of Raymond, and one of the house of Fitzgerald had espoused a daughter of earl Richard. In this crisis Henry despatched commissioners to desire Raymond's attendance at court, and also to inspect closely the conduct of Strongbow; but Raymond's attendance was delayed by insurrections in the south, where his presence was required at the head of the army, and Strongbow's death rendered farther surveillance unnecessary. Fitz-Ardelin, a nobleman allied by blood to king Henry, was appointed to succeed the brave Strongbow; and, upon his arrival at Waterford, the bulls of popes Alexander and Adrian, asserting the king's title, were solemnly promulgated. But these efforts did not produce the least effect upon the turbulent Irish: the new governor was withdrawn, and a second appointed with no better success, until Henry appointed the prince John to the lordship of Ireland.

In 1185 John, attended by a train of dissipated young noblemen, having however two sage advisers, a lawyer named Glanville and the historian Cambrensis, landed in Waterford, and was received with every mark of respect by the Irish chieftains: but their attentions were returned by his followers with the greatest insolence, and even with personal indignity. Eight months was a weak system of government administered by this young prince, when Henry, alarmed at the situation of the kingdom, withdrew him from Ireland and appointed De Courcy his successor. This dauntless commander was put to a severe trial of his courage and military skill, by the confederate armies of Connaught and of Thomond, from which with great difficulty he effected his retreat in Connaught. He was more successful in his campaign in Ulster, the dissensions of the Irish weakening their efforts, and De Courcy's vigorous proceedings still maintaining the authority of the English.

The Lacy's and De Courneys succeeded to the chief part of the administration upon the accession of John, the lord of Ireland, to the English throne; and, from the great neglect of that king towards all the affairs of his Irish dominions, these turbulent nobles assumed an independence which was productive of dangerous consequences by the force of example. De Courcy's disobedient conduct obliged John to summon him into England, where he was thrown into prison, and lay unnoticed, until the following accidental occurrence not only procured him liberty, but added to his former honors. A champion from Philip II. of France asserted his master's claim to Normandy, and proposed to prove it in single combat. No English champion accepting the challenge, John yielded to De Courcy's brave offer of vindicating the honor of his country. Upon the appointed day the French champion first presented himself, in all the confident assurance of an easy victory: but, upon the appearance of De Courcy, his stern aspect and gigantic stature struck such a terror into his opponent, that he declined the combat and withdrew into Spain. The two kings, who were witnesses to De Courcy's triumph, requested some test of that strength for which he had been celebrated, whereupon he ordered a post to be erected, and a coat of mail and helmet to be placed thereon, and, raising his trusty Irish sword, struck through the helmet and armour so deep that no one but himself could extract the sword. The success of De Courcy so gratified his prince, that to the reward of freedom was added the honor of appearing covered in the first audience with the kings of England, which honor was made hereditary. John now visited Ireland a second time, but did little more than assign boundaries to a few more shires.

On the accession of Henry III. the English power was much strengthened by the alliance of O'Neal, the bold chieftain of the north, and of Donald O'Brien, who obtained a grant of his own kingdom of Thomond from the king. During this reign, and that of Richard I., Ireland presented a scene of singular anarchy, from the contentions of the English-Irish, who seized upon the lands of every deceased noble, and as-

serted a species of right derived from strength solely. The Geraldines were the most turbulent as well as the most successful disturbers of every act of settlement. The Irish were treated with much severity during these commotions, and were obliged to sue for charters of denization. On the accession of Edward II. his favorite, Gaveston, was appointed chief governor, who drove the septs from their strong holds, and was proceeding vigorously to a more perfect conquest of the kingdom, when the jealousy of the nobles procured his recall. It was about this period that Edward Bruce, brother to the famous Robert Bruce of Scotland, invaded Ulster, and, prompted by the prospect of a crown, advanced into the province of Leinster. Being joined by O'Neal, and other discontented chieftains, he obtained many signal successes, and was solemnly crowned king of Ireland at Dundalk, in the county of Louth. The new monarch now advanced towards Dublin, where he was vigorously resisted by the citizens, who set on fire great part of their city: but, passing on to the south, he continued to spread havoc and destruction every where, until checked by the courage and power of the Geraldines, near Kilkenny. The English interest seemed once more to revive. Bruce withdrew to Dundalk, and set his crown upon the hazard of an engagement; in which his allied army was totally defeated, and himself slain by an English knight named Maupas, whose body was found lying upon that of Bruce after the battle was concluded. Robert Bruce had actually landed in Ireland, when he heard of the melancholy fate of his ambitious brother, upon which he immediately returned to his own kingdom, without waiting to strike a single blow in vengeance.

In 1327 the unhappy Irish again petitioned king Edward III. to be admitted to the privileges of English subjects: but this address met only the usual fate, and insubordination and insurrection continued to be cherished by the very government itself. The noble families of Thomond, Desmond, Ormond, and Kildare, were alternately supporters and opponents of the English, being driven into the latter character by an undue preference given by Edward to the English lords who migrated into Ireland in his reign. To aggravate these miserable disturbances, lord Lionel, the king's second son, who had been affianced to Elizabeth, heiress of Ulster, and claimed in right of his wife that earldom, and also the lordship of Connaught, was appointed to the government of Ireland. This prince, filled with hateful prejudices, forbade the old English, and all Irish by birth, from approaching his camp, which so irritated and disgusted the most honorable as well as the most powerful subjects, in the kingdom, that, being left by them to wage an ineffectual war, he was soon recalled; bequeathing to Ireland much more dissension than he found, together with the odious distinction of 'English by birth and English by descent.' Severe laws were now enacted against the Irish, declaring intermarriage, and all close intercourse with the Irish, to be high treason; all which were ratified in the great convention of Kilkenny.

A period seemed to arrive, not long after, when the distresses of the nation were likely to be terminated: this was the visit of Richard II. to Ireland. In the month of October, 1394, king Richard landed at Waterford, accompanied by a train of nobles, and at the head of an army of 4000 men at arms and 30,000 archers. The magnitude of this force rendered all attempts at opposition vain, and accordingly the insurgents of Thomond and Ulster made ready submission, in which they were imitated by no less a number than seventy-five Irish lords. The king received them kindly, treated all with condescension and hospitality, and studied to reconcile them to English customs. After a residence of nine months, amongst his Irish subjects, he embarked for England, leaving Mortimer, earl of Marche, his vicegerent. The government of Mortimer proved unhappy, and, in attempting to suppress the Byrnes of Wicklow, he was unfortunately surprised, defeated, and slain. To revenge the death of this brave, but incautious, nobleman, Richard resolved to make a second voyage to Ireland, and, embarking at Bristol, arrived at Waterford on the 13th of May 1393. After a delay of some weeks he led his forces against Mac-Murchard and a body of Irish insurgents, but was not allowed the opportunity of coming to a battle, the Irish retreating continually to their woods, where they enjoyed shelter from the enemy's darts, and were able to harass and annoy the king's troops. It was upon this expedition that the young lord Henry of Lancaster gave the first proofs of that distinguished valor which marked his after years. While Richard continued a treaty with the Irish chieftain he was not aware that his own crown was tottering to its fall: but at length those tidings of his deposition in England arrived which obliged him to return immediately, and leave Ireland once more to confusion and insurrection.

The vicegerency of the duke of Lancaster brought some tranquillity to the kingdom, although in his time was established the 'Black rent,' which Borderers were necessitated to pay to the Irish chieftains, to purchase their protection. The earl of Ormond was appointed to succeed to the lieutenancy, and found nine counties of Ireland completely subdued by the Irish chieftains, little more remaining to be governed by him than Dublin and its vicinity.

Hitherto the Kildares and Desmonds attracted little notice, while the earl of Ormond was the only Irish nobleman in whom the crown appeared to repose confidence. The consequences of this preference were jealousy and animosity, which scarcely subsided but with the extinction of one of those noble houses. Desmond becoming insolent, Ormond led the king's forces against him, but was compelled to make conditions with him, as an independent monarch; for which he was soon after removed from his authority. In the tumultuous state of things, which now resulted from the disputes of the houses of York and Lancaster, Kildare, having espoused the cause of the former, was appointed lord chief justice: while the noble earl of Ormond was brought to the scaffold by the same party. The animosities of these great families

increased to their greatest height. Attempts were made, in a parliament assembled in Dublin, to attain the earls of Desmond and Kildare of treason; and an act was passed ordering the tallage, called Black-rent, to be henceforth paid to the king's deputy for the support of the army, thereby reflecting upon the treaties lately made by Desmond. The parliament was then removed to Drogheda, where the enemies of the Geraldines felt more secure in urging their false accusations.

Desmond, in the confidence of a guiltless conscience, repaired thither to justify his conduct, when, to the astonishment of all, he was instantly brought to the scaffold and beheaded. Kildare meanwhile escaped to England, where he represented the cruelty and injustice of the sentence executed upon earl Desmond; and such was the effect of his appeal, that Tiptoft, who was recalled, suffered the like punishment as he had inflicted upon Desmond, while Kildare was made deputy in his stead, a rank which his faintly continued to retain for a length of time, almost in opposition to the authority of the crown. The improvidence of Henry, in intrusting the government of Ireland to such zealous adherents of the house of York, became now but too apparent, for, upon the breaking out of Simmel's insurrection, the impostor found a large body of supporters in Dublin, whither he instantly repaired, and was crowned in Christ Church, in that city, by the style and title of Edward VI.

The lords Thomas and Maurice Fitzgerald, with Plunket and other Irishmen of rank, accompanied the impostor to England, and all fell in the battle of Stoke, bravely fighting by his side. Kildare, who still governed Ireland more like an independent prince than a vicegerent, sent an acknowledgement of his error, with a confession of allegiance to the king: notwithstanding which Henry deemed it prudent to send his ambassador to witness Kildare's conduct and obtain some pledge for his future loyalty. For this purpose Sir Richard Edgecumbe was despatched, with a troop of 500 men; but, arriving at Kinsale, he appeared apprehensive of landing, and received the homage of Barry on board his ship. Sailing thence, by Waterford, to Dublin, he landed and was presented with the submission of the citizens, and, after a tedious negociation with Kildare, received that proud nobleman's homage and fealty, which were performed publicly. This ceremony was considered a sufficient guarantee for his future allegiance, whereupon he was absolved from the sentence of excommunication, and presented with a chain of gold, from the king, in token of perfect reconciliation. In 1494 the violent feuds of the Butlers and Geraldines, obliged the king to withdraw his delegated power from their hands, and commit the deputyship of Ireland to Edward Poynings. This wise governor summoned a parliament at Drogheda, where many valuable acts were passed, tending to diminish the power of the great Irish nobles. The most famous in its consequences, and one which still bears the enactor's name, is that which declares 'that no bill shall be introduced in Ireland until

it has previously received the sanction of the English council, by which the English authority was ever after fully established in that country. Poynings returned to England, and had the honor of the order of the Garter conferred upon him in token of his services.

The Geraldines being now once more restored to favor, ruled Ireland with haughtiness and rigor, the adherents of their rivals the Ormonds being treated with all possible severity. At length the Ormonds obtained the attentive ear of Cardinal Wolsey, and, improving this opportunity, turned it to the ultimate ruin of their rivals. Every art of the Geraldines was henceforward viewed with suspicion, the earl was called over to London to answer charges of an unknown informer, but was allowed to return. A second time he was summoned, but with less good fortune, for he was detained and thrown into confinement. The intercourse between the two countries was of an irregular and tedious nature, which left the Irish in a state of distracting suspense as to the fate of their late master: a suspense which the rashness of his son and deputy, lord Thomas, did not permit him to endure, and, without waiting to learn his noble father's fate, he broke out into open rebellion and bid defiance to the crown. This young nobleman, but twenty-two years of age, was spirited, generous, and humane: he possessed the ardent love of his followers and kinsmen, and gave very early promise of future greatness. Being now a declared enemy he collected his forces and laid siege to Dublin, but was opposed by the citizens. He continued to wage a desultory war for some short time, when, being betrayed by some of his followers and deserted by others, he found himself compelled to make conditions with lord Grey, which were, 'that upon the final dismissal of his troops, he should be received into the king's pardon.'

Lord Thomas, assured of pardon, readily consented to repair to London and throw himself at Henry's feet. But the violence of this unfeeling monarch's temper overcame his regard for his honor; and lord Thomas, and his five uncles, who were seized at a banquet in Dublin, were ignominiously put to death. The unhappy youth had the mortification to learn, before his death, that he had been driven into all his wild opposition by false rumors, for that his father was still alive, and sinking into the grave from sorrow for his son's fortunes and fate. The relentless Henry, though he well knew that two of the Geraldines, whom he had executed, were opponents of the late rebellion, still continued to persecute the race, and sought to exterminate the name. A youth of twelve years of age, the brother of lord Thomas, was now sought out, as an enemy to the crown that could not be permitted to survive. The widow of Mac Arthy, and aunt of the young lord, at first undertook the guardianship of his person, but, finding Henry thirsting for his blood, she consented to a marriage with a powerful chieftain, O'Donnell, on the express condition, that he should protect her nephew. O'Donnell's sincerity appearing doubtful, the king of France was induced to protect that youth and innocence, which

could not plead with the heartless Henry; and, when the English monarch had the meanness to demand the boy, as a rebel subject, the king of France favored his escape into Flanders. A similar demand was now made to the emperor; but with no better success. Finally he was permitted to seek the protection of cardinal Pole, who received him as his kinsman, and preserved him to regain the honors of the family of Kildare.

During these transactions in Ireland the course of events in Europe was undergoing a total revolution, by the introduction of the reformed religion and the doctrines of Luther. The wantonness and severity of Henry's natural temperament involved him more than other princes in the great religious change that now occurred; and probably he nowhere found the task of reformation more difficult than in Ireland. However Browne, who had been provincial of the friars of St. Augustine, a man also remarkable for the liberality of his religious opinions, after his elevation to the archdiocese of Dublin, led the way in the new reformation, and read the reformed service in Christ Church Dublin. Parliament also acknowledged the king's supremacy in spiritual matters, and confirmed and annulled his marriages, as often as his lust or his cruelty prompted him to select a new queen, or to cut off the unhappy partner of his throne and bed. In addition to the violent opposition of the clergy, who, secretly encouraged by the pope's legate, resigned their benefices, Henry found a new and troublesome enemy in O'Nial, of the north, who formed a confederacy for the suppression of heresy: but, by the activity of lord Leonard Grey, the confederates were defeated and scattered. Lord Grey was soon after recalled, and rewarded, by his royal master with a death upon the scaffold. The discomfiture of O'Nial, followed by the most complete overthrow of the Irish, under O'Brien, in Munster, threw the king's enemies into the greatest despair: many monasteries were surrendered to the crown, and their constitutions re-modelled: while the chief youths of the kingdom were obliged to consent to be educated after the English manner.

A change was now made in the executive, which assumed a more dignified character, the style of lord of Ireland, with which the English monarchs had hitherto been contented, being relinquished for that of king. During the reign of Mary, O'Nial continued to resist the authority of the English; while the inhabitants of Seix and O'Fally could not patiently resign their claims and possessions to the new settlers; and, taking up arms, they were either cut off in the field, or suffered death by martial law. But the changes consequent upon the return of a queen of the reformed religion, to the British throne, revived all former feuds, both of a civil and religious character. Sidney was now entrusted with the government of Ireland, and the most sanguine hopes were entertained of beneficial results likely to arise from it. O'Nial had now grown into the pride of sovereignty, he razed the castles on the borders of the Pale, burned the cathedral of Armagh, and sent ambassadors in his own

name to Spain and to Rome. But the discernment of Sidney proved too much for the rashness of O'Nial, and, when the latter thought himself surrounded by faithful allies, he was in the midst of nobles, whom he had formerly, perhaps, treated with some degree of haughtiness, and who now listened to the overtures of the deputy, in order to gratify petty jealousies and vengeance. Thus surrounded by enemies O'Nial at last resolved to relinquish so unequal a contest : and, being induced to capitulate, was invited to a banquet, where the terms were to be agreed upon ; but here a quarrel was purposely raised, and O'Nial and his followers treacherously assassinated. The author of this cowardly stratagem was an English officer named Piers, who received 1000 marks as his reward.

The province of Munster was now in a state of great insubordination, nor were the best exertions of Sydney capable of subduing the insurgents. To effect this, Sir John Perrott, an austere and vigorous officer, and a natural son of Henry VIII., was appointed president of that province. Perrott's conduct did not disappoint expectation : he pursued the Irish with unabated fury, nor ceased until he had driven them from every haunt, and no alternative remained but submission to the queen's mercy. The next interruption to the repose of the country was derived from an invasion of the Spaniards on the south-west coast. They brought with them arms and ammunition for 5000 men, and a sum of money to be delivered to earl Desmond. Effecting a landing at Smerwick, they entrenched themselves at Golden Fort, and proclaimed their determination to hold out to the last in the glorious cause of the extirpation of heresy, and the assertion of their master's right to the kingdom of Ireland. In this position they were attacked by lord Grey, and, after an obstinate resistance, obliged to surrender at discretion. The Irish rebel, found in the fort were executed by martial law ; and to Sir Walter Raleigh was committed the odious service of putting the unarmed garrison to the sword.

The unhappy earl of Desmond now sued for pardon, but in vain ; his co-operation with the Spaniards her majesty could not forgive. In this deplorable situation he was hunted from one miserable hiding-place to another, disguised in a dress resembling that of the meanest of his followers, and a price was set upon his head ; until, overtaken in a hut by a few soldiers commanded by Kelly of Moriesta, he called to him for mercy, saying, 'Spare me, for I am the earl of Desmond ;' but Kelly smote off the aged nobleman's head, and sent it to Ormond. It was afterwards conveyed to the queen, and impaled upon London bridge. Such was the melancholy extinction of a family which had existed for four centuries, in rude magnificence, and had proved too powerful to be governed.

The government of Perrott, which left a lasting impression upon the peaceable part of the Irish, was shortened by the private slander and calumnies of his enemies at court. Perrott had laid the foundation of a peaceful reign for his mistress in this part of her dominions, and gained a favorable juncture for the introduction

of civilising institutions. Many attempts had been previously made to establish a college in Ireland, but with no success. So far back as 1311 archbishop Leek had procured a bull from the pope for the erection of a university in Dublin, but the project ended with that prelate's death. A second attempt was made by his successor Bicknor, in the reign of Edward II. ; and in the reign of Edward IV. an act actually passed the Irish parliament for the foundation of a university in the town of Drogheda, which also was neglected. For the reign of Elizabeth it was reserved to establish the sources of light, humanity and civilisation, in a country darkened by ignorance, and ferocious from persecution.

The rebellion of Tyrone now again burst out, and raged like a destructive conflagration through a great part of Ireland. Essex, the queen's favorite, was appointed to oppose him with a newly raised force, and with the style and title of lord-lieutenant of Ireland ; whereby his powers were increased, and authority granted him of pardoning offenders, even those guilty of treason against the queen. Essex's campaigns were not successful, much treasure and many lives being expended in fruitless attempts to reduce Tyrone ; and the lord-lieutenant found himself at last only in a situation to make terms and offer pardon. The cautious and crafty chieftain obtained such conditions as were displeasing to her majesty ; and Essex, fearing the secret whispers of his court rivals, returned to England to justify his conduct. Lord Mountjoy, Sir George Carew, and others, were now appointed to different commands in Ireland, and executed them with better fortune. Tyrone and O'Donnell were reduced to extremities, and must have surrendered to the English power, if assistance had not appeared from an unexpected quarter. A Spanish fleet anchored in the harbour of Kinsale, under the command of Don Juan D'Aquila, and the forces on board, having effected an undisturbed landing, possessed themselves of the towns of Kinsale, Castlehaven, and Baltimore, which they strongly entrenched. The rebellious chieftains of the north soon joined them, and a general engagement followed, in which, to the amazement of the Spanish general, they were defeated almost instantly, and fled with precipitation from the field of battle. Disgusted at this contemptible conduct of his Irish allies, Don Juan resolved upon sparing the lives of his own countrymen, and accordingly surrendered upon honorable conditions.

Tyrone withdrew to the north, and renewed hostilities against the English ; but being cut off from his own territories, by the skilful manœuvres of the English general, the miseries and privations of his followers determined him to sue for pardon and amity. Mountjoy, dreading a repetition of a Spanish war, and fearing the expense and tediousness of a new rebellion, accepted Tyrone's conditions, particularly as, when pending the negotiations with Tyrone, private accounts of the queen's death were brought to him. He, on this, instantly despatched Sir W. Godolphin to Tyrone with a safe conduct, and renewed the assurances of his pardon. The earl immediately

accompanied the envoy to Mellifont, and at Dublin publicly renewed his submission to the queen, which he had scarcely made when he learned the tidings of her death. Upon the receipt of this intelligence he is said to have burst into a flood of tears, which he explained to be an excess of grief at the loss of so merciful and tender a mistress, but historians have sometimes otherwise interpreted his sorrow.

After an unceasing struggle of 440 years, the enemies of the English crown were entirely subdued in this island, and an opportunity was presented for the introduction of wholesome laws. During the short administration of Carew, sheriffs were sent into the counties of Tyrconnel and Tyrone, and itinerant judges through all the northern counties. The old Irish customs of tanistry and gavelkind were abolished by judgment in the king's bench, and Irish estates made descendible, according to the course of the common law of England. While these improvements were in progress, a letter, dropped in the privy council chamber, intimated that Tyrone and Tyrconnel were once more in league with Spain; and these noblemen fled to the continent, abandoning their extensive possessions in Ulster to the crown. James considered the hasty flight of these traitors as a fortunate issue, and proceeded forthwith to partition their vast domains amongst Scotch and English settlers. He also conferred large grants of land, and several valuable church livings, upon the university of Dublin. By which measures a number of loyal and industrious inhabitants were substituted for free-booters and ungovernable subjects: many towns were built, and some of them incorporated, and obtained the right of representation in parliament.

The repose and calm, which Ireland would otherwise have enjoyed, were disturbed and ruffled by the continued applications to the crown, of the recusants. Finding their prayers neglected, they are said to have had recourse to pecuniary arguments, by which they found themselves more likely to be secured. And, indeed, their feelings were inflamed and their passions constantly roused by the Roman pontiff, who besought them to lose their lives rather than submit to the pestilent oath of supremacy, which wrested the dominion of the church from the Vicar of God Almighty. The result of their perseverance, however, was the enactment of many beneficial regulations, some relaxation in the laws concerning recusants, and a general act of pardon.

The religious feelings of the Irish were now put into a state of great fermentation, by the public preaching of a fraternity of Carmelites who appeared in Dublin, and resisted the interference of the law. In this crisis a lord deputy was chosen, by king Charles, possessed of great cunning and activity of mind, and a haughty and commanding demeanour; this was lord viscount Wentworth. He resolved, in the first moment of his authority, upon an extensive plantation of Connaught, by the annihilation of the title to every estate in the province. He summoned and dissolved the parliament at pleasure; treated the remonstrances of the lords with contempt; issued order for the reparation of churches, and compelled a restitution of the rights of the

clergy by the landholders. To him, however, is due the praise of uniting the churches of England and Ireland, a task of considerable difficulty at that precise moment, when the primate Usher had just drawn up distinct canons for the Irish church. The lord deputy escaped the danger of an encounter with a man of such learning and piety, by ordering that there should be a selection only from the English canons adopted in Ireland. Shortly after a high commission court was established, after the model of that in England.

Wentworth's severity to the inhabitants of Connaught, who did not acknowledge the king's title, occasioned strong representations to be made against him at court. In addition to this, the trial and condemnation of lord Mountmorres, by the deputy and a court martial, were warmly urged by his numerous enemies. But the attachment and confidence of his royal master were, at this time, too entire to be shaken. Wentworth had soon an opportunity of showing his gratitude to Charles, which he did not hesitate to embrace. On the first alarm of the Scottish insurrection, he remitted £30,000 from the Irish exchequer to the king, and added a noble donation from his own private fortune. He transmitted, besides, a body of 500 well disciplined men under the command of Willoughby, an experienced officer, to establish a garrison at Carlisle. Upon which the king confirmed him in his government by the more honorable title of lord-lieutenant, advanced him to the dignity of an earl, by the title of Strafford, and created him a knight of the garter. The state of England, as well as the dissensions between the Romish and Puritan parties, now rendered the administration of Ireland of no small danger. Lord deputy Wandesford's sudden death was imputed to the vexations of his government, and the prosecution of his predecessor Strafford: a prosecution followed by his attainder and death.

An unnatural and bloody insurrection burst forth at this time, the flames of which were kindled by one Roger Moore, and kept alive by Maeguire the lord of Enniskillen. The design of this conspiracy was the subversion of all the late establishments of property, by acts of settlement or otherwise; the restoration of the native Irish to all that they had lost, either by the rebellions of their ancestors or by decisions at law; and the complete re-establishment of the Romish religion. The inactivity of the lords justices has never been satisfactorily explained: it appears not merely blameable but suspicious; for little doubt exists that the nefarious conspiracy could have been smothered in its very cradle, had their lordships not wilfully disregarded the information laid before them. At first it was confined to Ulster: here Sir Phelim O'Neil ordered his followers to massacre all the Protestants of those parishes where he had been previously defeated. Lord Caulfield was basely murdered in one of O'Neil's houses, whither he had been conveyed as a prisoner. The miserable Protestants and settlers were driven from town to town, like beasts, at the point of the bayonet: sometimes they were forced into the nearest house, which was then set on fire, while their inhuman persecutors stood around enjoying their

tortures and cries. At the bridge of Portadown 190 were precipitated into the stream, while their murderers ran to the river side, and there plunged their bayonets into the unhappy beings who approached the shore struggling for life. Women are said to have been driven, in a state of absolute nudity, along the highway, by those of their own sex; and children were torn untimely from the womb. All which scenes of blood and torture, Sir William Temple assures us, were performed or encouraged by Irish ecclesiastics. After the trial and execution of lord Macguire and his confederates, and notwithstanding the culpable indifference of Balasee and his conjutor Parsons, this insurrection was terminated by the defeat of the rebels at Kilmash. The instrument of this deliverance was the earl of Ormond, whose signal services, during this disgraceful civil war, were rewarded by a jewel of £500 value voted to him by the parliament, and the order of the garter bestowed on him by his royal master.

The commotions that followed for some years were comparatively trifling. In the north Robert Monro, a severe Scottish general, preserved tolerable tranquillity, and by crafty negotiations occupied the attention of the rebel leader, while lord Ormond, by his great military and diplomatic abilities, both suppressed violence, and treated for a peace with the Roman Catholic confederates. The conditions proposed by him appeared to the confederates so satisfactory, that the blessings of peace were about to be restored, when Rinuncini, the pope's nuncio, presented himself and insisted upon a magnificent establishment for the Romish clergy: this so much embarrassed the proceedings that the treaty was instantly broken off. But the attachment of Ormond to his unhappy master would not permit him to abandon the prospect of attaching so many faithful adherents to his cause; and having renewed his proposals, with some little alterations, they were received and approved by the confederates. Meanwhile Rinuncini addressed himself to Owen O'Nial and his band of rovers, and besought him to assist in enforcing the command of his holiness to re-establish the Romish church throughout the kingdom. Owen gladly embraced an occupation that might lead to plunder (his only mode of subsistence), and, advancing towards a place called Benburb, engaged the English army commanded by Monro. Owen was successful, having killed upwards of 3000 of the British, with the loss only of seventy on his part. In this battle also fell that gallant officer, lord Blayney. The consequences of this victory might have been fatal to the English in Ulster, had Owen pursued the advantage gained, but he was suddenly called into Leinster, by the meddling nuncio, to oppose the peace with the confederates.

Ormond found himself now surrounded by difficulties and dangers: the interference of Rinuncini with the confederates, and his threats of excommunication against the moderate of his party: the increased violence of O'Nial, from his late victory at Benburb, and the treachery of Preston, who had yielded to the conditions of peace, contributed so much to harass and dis-

tract him, that he at last resolved upon resigning the lieutenancy of Ireland; and brought home with him the regalia.

Landing at Bristol he proceeded to London, to assist and advise his royal master; but, finding his liberty threatened, he withdrew to St. Germain. The Irish now addressed the queen when conditions of peace were by the prudent counsel of Ormond obtained: and the immediate consequence was the return of Ormond to Ireland. Here he soon after learned the bloody death of his affectionate master, and instantly caused the prince of Wales to be proclaimed king. His exertions in the royal cause from this date were less fortunate than well designed; and at last arrived Cromwell, against whose power and cruelty Ormond's means and provisions were of little effect. Well supplied with all the necessities of war, Cromwell landed in Dublin, and advancing to Drogheda besieged that town, where he put all the inhabitants to the sword, thirty excepted, who were transported to Barbadoes. Wexford and Ross shortly after shared the fate of Drogheda; but a strong detachment commanded by Ireton was unable to make any impression upon the fort of Duncan: Wogan, the governor, having repulsed them from the walls by a brave and vigorous sally. Waterford was next the object of Cromwell, but here the superior skill of Ormond frustrated his plans, and the petty quarrels of the corporators, who refused to supply boats to ferry the troops across, probably saved him the hazard of a final engagement. Cromwell, escaping from Waterford, continued both personally and by his officers, the subjugation of Ireland to the parliament of London. In the north, every town was in his power, Charlemont and Enniskillen excepted; and Kilkenny was surrendered into his hands, when Cromwell resigned his command to Ireton and returned to England.

Ormond, meanwhile, surrounded by the most distressing difficulties, preserved his attachment to the royal family, and used his ablest exertions to keep together his small body of troops. In his opposition to the English parliament he was but little supported by the confederates, as he never entirely yielded to the conditions they required: and at length, finding the demands of the Romish clergy too exorbitant, he entrusted his commission to the marquis of Clanricarde, and, embarking at Galway, after a tempestuous voyage arrived in France.

Clanricarde, anxious to preserve the king's authority, was at the same time unwilling to offend the church. The Irish in this difficulty addressed themselves to the duke of Lorraine, who for a short time hearkened to their representation, and advanced funds for supplying arms; but whatever were his designs he soon found they were not likely to be promoted by any treaty with the Irish, and accordingly withdrew his agents.

Ireton continued to reduce Ireland to the authority of parliament: Limerick was soon besieged and admitted to a surrender: and O'Brien, the popish bishop of Emly, together with Fennel and Geoffry Browne, suffered by

the hands of the executioner: this severity procured the surrender of Galway without much delay.

The restoration of Charles II. excited various emotions in the different parties of the Irish nation. Some were impatient to be restored to their ancient possessions; others to be continued in their new acquisitions: some were solicitous to be pardoned for their delinquency; and others to be rewarded for their services. To allay these disorders, a bill of indemnity was first prepared by which the Romish party was effectually excluded from power: but, this measure not proving satisfactory, the famous declaration for the settlement of Ireland was published. By this declaration adventurers in possession of lands or tenements, on 7th of May 1659, were confirmed in the same: soldiers, to whom lands had been allotted for their pay, were allowed to retain them, with some exceptions: officers who had served previous to June 1640] were to be paid in houses and lands allotted for the purpose: Protestants, whose estates had been given to adventurers, were to have the same restored: and innocent papists, though they had taken lands in Connaught, were to be restored to their estates. But those whose estates lay within corporate towns were to be indemnified. Though a meeting of parliament shortly after confirmed this act of settlement, the injured Roman Catholics, and the ejected adventurers, appealed to the king and the English parliament for redress.

The arrival of the duke of Ormond was now looked to, by all parties, as the only thing likely to relieve the nation from its embarrassment, and parliament voted him a sum of £30,000. But the wisdom and integrity of Ormond, who had relinquished his own rights to facilitate a general accommodation, were not able to allay the irritated feelings, or satisfy the numerous demands, of the claimants. He returned to London, and there framed a bill of explanation, by which one-third of the king's grants was retrenched, and twenty persons added to the list of nominees, whom the king was to restore to their estates. The disorders of Ireland had just been brought to a termination, by the last prudent and moderate act, when they were again renewed by a measure originating with the English commons. In a parliament held at Oxford, 1665, a bill was brought in for the 'perpetual prohibition of importing cattle from Ireland, dead or alive,' and, though it passed the commons, it met opposition in the lords, and caused the prorogation of parliament. The commons foolishly supposed that the importation of cattle from Ireland was the occasion of the greatly diminished rental of English estates at this period, their total value amounting to but £200,000 annually: whereas the real causes were, the expulsion of so many industrious Puritans, who fled to Holland: a diminution in the trade of the kingdom, arising from the French and Spanish wars: and the plague which had lessened the consumption of provisions. Ormond, being removed and restored again, was ultimately and indecently dismissed from the lieutenancy, upon the accession of James II. His age and in-

mities were assigned as the reasons for this, and he affected to believe they were the real cause. But the speedy disarming of the Protestants soon established the fact, that the eagerness of the Romish party for ascendancy was the real motive. The history of Ireland from this period is intimately connected with that of England. Some facts, however, are so entirely Irish, that they may with propriety be added.

The violent conduct of James extended to Ireland, perhaps with more calamitous consequences than elsewhere. The zealous Romish advocate, lord Tyrconnel, continued to aggravate the mischiefs James was desirous of inflicting upon Protestants: at his instance three judges were removed without cause, and an equal number of Roman Catholics substituted, some of whom were themselves aware of their unfitness and declined the honor. The Irish seals were suddenly taken from primate Boyle, and handed to Porter, a submissive retainer about the court. The king refused to fill the vacant see of Cashel, appointed his trusty Tyrconnel lord deputy, and formed his Irish army almost exclusively of papists. A king's letter now reached Dublin, appointing Green, a Roman Catholic, to the professorship of Irish, an office which did not exist in the university: this was but the commencement of the spoliations meditated by James upon that institution. Their plate was next seized upon and lodged in the king's stores; and Doyle, a profligate ignorant person, was appointed to a fellowship by a king's letter. Such was the entire transition to a Romish establishment in progress in Ireland, when the prince of Orange effected a landing in England.

Tyrconnel's zeal frequently blinded his judgment, particularly in the rash act of withdrawing the garrison from Derry. But, as soon as he perceived his error, he detached thither the earl of Antrim's regiment, composed entirely of Papists, Irish, and Highlanders. Upon the approach of this body of men, the inhabitants, urged on by nine spirited youths who seized the keys of the city, raised the draw-bridge, and locked the ferry-gate. Philip Timavady, who had chiefly encouraged them to this enterprise, was chosen governor, and an account of their situation, accompanied by a solicitation for protection, was instantly transmitted to the prince of Orange. Tyrconnel, finding the citizens resolute in their refusal to admit the Antrim regiment, sent thither a detachment of six companies, under the command of lord Mountjoy, a Protestant nobleman, and highly acceptable to the inhabitants. Mountjoy was readily admitted upon conditions, and assumed the command of the city as a friend and associate.

The state of the prince's affairs in England left him but little time to reflect upon the cruel government of the Irish deputy, and Mountjoy, finding his services elsewhere might be more beneficial to his party, withdrew from Derry, having entrusted the command to Lundy, a man who affected great attachment to the Protestant cause. A commission being now sent to Lundy, he refused to take the oaths in public, which raised suspicions of his integrity amongst the

citizens; suspicious afterwards too strongly confirmed. Upon the landing of James in Ireland, Derry presented the most formidable prospect of resistance: thither the Protestants of the north had been driven, by the ferocity and rashness of Tyrconnel, and there the little assemblage of heroes led on by George Walker, a Protestant clergyman, were prepared to resist, to the last, the partizans of the abdicated king. Lundy alone proved himself, not only deserving of the suspicion he was held in, but also a base coward, having fled from the field and hid himself within the walls of Derry. Nor was this the only baseness he was guilty of; for, upon the approach of James, he advised the surrender of the city, assuring the garrison that it was untenable; but the heroic temperament of the towns-men was rather kindled into a spirit of resentment, than overwhelmed by any feelings of despair; and in the enthusiasm of the moment they rushed to the walls, and pointing their cannon, fired upon the advanced guard of James, who was approaching in the confident assurance of taking a quiet possession of the place. The siege now became formal, the timid were allowed to retire, while Lundy escaped, from the confinement of his own house, on shipboard, and James sat down before the walls for eleven days. But, impatient of disappointment, the king returned to Dublin, leaving Derry closely invested. The inhabitants became at length strengthened for provisions, and famine and disease made equal and continued ravages in the garrison. Meanwhile, an unfortunate multitude of Protestants, of all ages and conditions, were goaded on by the king's army to the very walls, and there suffered to perish miserably in the presence of the besieged.

The most powerful antipathies of nature were overcome by the invincible horror, now conceived by the besieged, of their relentless enemy. The flesh of horses, dogs, and vermin, purchased at extravagant prices, were eagerly devoured by the wretched citizens, who, nevertheless, continued to persevere in a most heroic defence, and sometimes made successful sallies on the besieging army. In the midst of these calamities, death, famine, and disease, two vessels, laden with provisions and convoyed by a frigate, advanced in view both of the garrison and of the king's troops; the enemy thundered furiously upon them, from their batteries, which fire was returned with equal spirit. The foremost of the victuallers struck forcibly against the boom, which had been stretched across the river, and snapped it: but, rebounding with violence, ran aground. The enemy, exulting in loud acclamations, prepared to board her, while the garrison on the walls remained stupefied with despair. At this critical moment the vessel fired her guns, was extricated by the shock, and almost instantly floated. Passing the boom, she was followed by the other vessels: and, the town being thus relieved, the enemy abandoned the siege.

During the course of this siege James's troops were much embarrassed by the operations of the Enniskillen men. A brave band of Protestants who had confederated, chose one Gustavus Hamilton for the governor, and proclaimed William and Mary. This small body was en-

closed by three great armies under the separate commands of Macarthy, Sarsfield, and the duke of Berwick. But, by a peculiarity of fortune ignorance of danger procured their deliverance for, knowing of but one enemy, they advanced and defeated him, which caused the others to retire; not, however, without suffering in their retreat from the Enniskilleners, who at length detected their danger, and were become more familiar with it.

James's disappointments increased his follies and extravagances: he assembled a parliament in Dublin, and there passed acts, by which the personal estates of all absentees were vested in the king: also an act declaring that the parliament of England cannot bind Ireland: against writs and appeals to England: an act for liberty of conscience: an abolition of the provision made for ministers in corporate towns: and an act entitling the Romish clergy to all tythes payable by those of their own communion. His arbitrary conduct was also strongly marked by his assumption of the right of copper coinage, and his conversion of old cannon, broken bells, and such like materials, into pieces of money valued at £5, the intrinsic value not exceeding 4d. Ireland was in this deplorable situation when Schomberg arrived near Bangor, in the county of Down, and laying siege to Carrickfergus speedily reduced that fortress; but being much pressed by the sickly nature of the climate, and difficulty of crossing the country, he was contented with a defensive warfare, until the arrival of king William, on the 14th of June 1690, near Carrickfergus; a measure which brought the cause of the abdicated monarch to a speedy issue. Upon the intelligence of William's landing, James, contrary to the advice of his council, resolved to take the chance of an engagement. And meeting on the banks of the river Boyne, on the last day of June, both armies prepared for an engagement, and the following day William crossed the river, by the ford of Oldbridge, and engaging James totally routed and defeated him. See BOYNE. William received a slight wound in the shoulder previous to the battle, and the brave Schomberg, and Caillebotte commander of the Huguenots, fell in attempting to ford the river: the celebrated Walker, the defender of Derry, whose military ardor had led him to follow William, also received a wound of which he shortly after died. This battle determined finally the conquest for the crown, and closed the hopes of the Romish party in Ireland: the pusillanimous James fled to France, and left his infatuated followers to the vengeance or the mercy of the conqueror. Some few fortresses held out for James, but the arms of Marlborough soon reduced them: and the distinctions of English and Irish, Protestant and Papist, were almost annihilated by the abdication of the Stuarts, and by the articles agreed upon at the surrender of Limerick, upon the 3d of October 1691.

PART II.

STATISTICS OF IRELAND.

Topography. — Ireland contains about 20,000,000 of English acres, and is on the whole of a mountainous character: the highest land,

McGillicuddy's reeks, reaching an elevation of 3410 feet. The soil, which is remarkable for its fertility, rests principally upon a substratum of limestone, to which circumstance, in all probability, its fertility is mainly attributable. This valuable species of stone occupies the central district of the island, extending from Lough Erne, in Fermanagh, to the county of Cork, and from Dublin in the east, to Galway in the west coast: supporting and nourishing nearly two-thirds of the whole area of the kingdom: even the flat bogs of the country rest upon limestone. In the lower beds of the great central limestone district very beautiful black marble occurs, which is worked into forms for domestic purposes, and made an article of export. A more beautiful species of brown marble, totally unknown beyond the limits of the barony in which it is raised, occurs in Fermanagh, where it is worked into chimney pieces and other useful articles. Statuary marble of excellent quality is found in the primary regions of Donegal and Galway, besides some beautiful rose marble. The granite regions are, the Donegal or Northern, Connaught or Western, the Down, and the Leinster.

These great primary fields abound in mineral riches. Donegal contains gray granite and sienite, or sienitic granite, exactly resembling the Egyptian; besides rich veins of statuary marble, and valuable mines of lead. The Connaught range is beautified and enriched by inexhaustible stores of green serpentine, of the most exquisite colors, and capable of being raised in slabs and blocks of great magnitude. Two quarries are now worked, one called Darcy's and the other Martin's quarry, and supply a brisk export trade. The Leinster granite field abounds in mines of lead and copper, and alluvial gold in small quantities has been found in the county of Wicklow, near to the centre of the region. The Down district has not unfolded its treasures with equal benefit to speculators, but it has been less subjected to trial. In the superficial blocks of granite, beryls of a bright green are frequently found, which bring a good price in the London and Edinburgh markets. The most durable granite in Europe, superior even to that of Aberdeen, occurs in the primary county of Leinster. It was not long since submitted to a test, together with the granite of Dartmoor and Aberdeen, the result of which established the high state of crystallisation of the felspar in the Killiney granite; on which the durability of this species of rock depends. In these districts, besides valuable mines, large beds of felspar, i. e. disintegrated granite, equal to that of St. Stephen's in Cornwall, constantly occur; chiefly in Wicklow. This has been tried and found to be superior potters' clay.

There are in Ireland eight principal coal fields: these are called the Antrim, Tyrone, Fermanagh, Connaught (in several counties), Monaghan, Leinster, Tipperary, and Munster. The first is thought to have been worked previous to the discovery of coals in England. Fermanagh coal field remains still totally unexplored. The Connaught coal district has been known to contain a valuable bed of coal, and has been worked with

success for many years. An inexhaustible supply of iron stone is found near Arigna, contiguous to the Connaught coal district, which is acknowledged to be superior to any used in the British iron works. Owing to the improved navigation of the Shannon, aided by the canal from Tarmonbury, both coals and iron can be conveyed to Dublin with great facility, and at a small expense; but, though the iron would amply repay the manufacture, lord Lonsdale can always afford to undersell the coal merchant. The coal of the Leinster district has also been long known, and profitably worked; but the coal is of the non-flaming kind.

The Munster district, though of later discovery, is now conferring employment, and thereby happiness and tranquillity, upon the central district of the county of Cork (See article CORK), where potteries and other useful establishments have been formed, and are conducted with a success corresponding to the wisdom with which they were instituted by Mr. Leader at Dromagh. But the coals here are of the same character as those of the Leinster or Kilkenny region; and, generally, the coal fields of Ireland may be divided by an imaginary line drawn from Galway to Dublin, the coal fields to the north of which contain bituminous coal, while all those to the south contain non-flaming or stone coal. The flaming coal of Ireland, generally, is of a medium quality between the swift burning coal of Scotland and the caking coal of Whitehaven, and equals any in Europe, for either culinary or manufacturing purposes.

In the county of Antrim, north-east of Ireland, is found the most extensive range of *basalt* in Europe. Here is the famous stratum of columnar basalt, called the Giants' Causeway, forty-five feet in thickness, which dips into the sea, and appears again, though less beautifully and minutely articulated, on the coast of Scotland, amongst the Hebrides. Greenstone occurs in this county, in masses rudely columnar, and of ten feet diameter; the perpendicular cliffs in this part rising to 400 feet, and the whole basaltic region dipping towards the land. The limestone of this district is magnesian or lias, which occurs less frequently in other parts of Ireland, and contains nodules of flint imbedded in rude boulders as well as in continuous beds. This region is separated from the granitic of Antrim and Derry, being exactly analogous to that of Cheshire, in England.

The mines of Ireland, though known in the very remotest ages, were allowed to slumber in their deep retirement undisturbed, until the late speculative season, so ruinous to other societies, called the mining associations into a more propitious existence. The companies lately formed are, nearly all of them, eminently successful, and shares of the Hibernian Mining Company, which the calamitous fate of so many Joint Stock Companies had reduced to perfect worthlessness, are now at a premium in the London market. The localities of Irish mines, generally, are analogous to those in the neighbouring island of Great Britain, being placed mostly at the junction or rather separation of two different

geological regions ; and, with the exception of those contained in the Sliebh Bloom, and Galtee regions, are all found to be at convenient distances from the sea coast ; a circumstance of paramount importance, not only as regards the exportation of ore, but also with respect to the importation of fuel. The mining company of Ireland have collieries at work in Roscommon ; at Sliebhardagh in Tipperary, and at Surgabucy in Tyrone, at the latter of which there is always a good store bank for the supply of the vicinity. The same company are working the rich and valuable Audley copper Mines in Cork county, and a second vein of copper in the county of Waterford. At Bally Corus in the county of Dublin, the company are now applying their machinery to rolling lead and making pipes ; having a smelting house at that place, and finding some difficulty of disposing of lead in pigs, with sufficient despatch.

In the royalty of Glendalough, in the county of Wicklow, belonging to the archbishop of Dublin, are two veins of rich *lead* ore, at one of which, the Hero mine, lead is raised at an expense of £1 5s. per ton, and within twelve fathoms two parallel veins have been this year (1827) discovered, equally rich, and capable of profiting so much by the adits now forming, that they can be unwatered at a very trifling and light expense ; the produce of this mine affords an average of two tons per fathom. The same company have a profitable lead mine at Kildrun, in the county of Donegal, where galena is raised in great quantities, yielding an average produce of one ton and a quarter per fathom ; large shipments from this mine are annually sent to the London market, where it merits a preference. The slate quarries at Killaloe in the county of Tipperary, so conveniently situated for water carriage by the Shannon and by two great canals, are composed of very superior metal, resembling that worked in the quarries of Llanberris in North Wales. The baneful spirit of combination, which made its appearance at these works, rendered their suspension necessary for awhile, but they are again resumed, and must, if prudently and skilfully conducted, be successful. The shipments of the company in the month of August 1827 were, 240 tons of copper ore, 260 tons of lead ore, producing seventy-five per cent. of lead with 600 pigs of lead, independent of their Irish sales.

The Hibernian Mining Company are not less successful. Their copper mine at Ross Island, on the beautiful lakes of Killarney, yields a produce of 100 tons of ore per month ; this mine, formerly worked by the Danes (as is evident from the discovery of the stone hammers, and other rude mining implements belonging to that people, constantly found on the island), was abandoned, from the great difficulty of freeing it from water ; but the application of the steam engine, and the very great ingenuity of the superintendent engineer Mr. Weaver, an experienced practical miner, have overcome these obstacles, and obtained the singularly abundant produce already mentioned. To this company also belongs the slate quarry at Valentia Island, in the county of Kerry, which is at full work, the slates

raised there finding immediate sale in the adjacent country. At Killery harbour is a good slate quarry, admirably placed for exportation. There is but one mine of *antimony*, as yet, worked in Ireland, that is, at Tullybuck in the county of Monaghan ; and at Inveran Castle, in the county of Galway, occurs the only vein of *molybdenum*, hitherto discovered in this kingdom. At the copper mines of Beerhaven are ten great contemporaneous veins of copper, sixty-six feet broad, in a matrix of quartz ; and so rapidly is the ore raised, in bunches, as it is always found, that the mere breaking of it occupies upwards of 500 hands. The famous silver mines of Tipperary still remain neglected : they were clumsily wrought in the reign of queen Anne, by lord Abercorn's agent, Mr. Hamilton. The working would certainly be attended with difficulty, the matrix being iron ochre, and the vein very irregular : the works were never extended farther than eighteen fathoms. In Croghan Kinshelagh, in the county of Wicklow, alluvial gold was found, and stream works erected on the Ballinvally rivulet, when 2666 ounces of pure gold were gathered, worth about £10,000 : but, after a scientific test and careful analysis of the contents of the mountain mass, the Wicklow gold mines were abandoned by government, in whose hands they had been for two years. The mines of Ireland appeared to deserve this notice here, because hitherto no geological chart, or mineralogical essay upon the construction and internal contents of that country, has been published.

The waste lands of Ireland attracted the attention of the Irish parliament in 1715, when an act was passed to render the rivers of this kingdom navigable, thirty-two of which had been surveyed with a view to that object. In 1726 a bill enabled the bishops to lease bogs for sixty years ; and in 1732 was passed the barren land act, empowering the court of chancery to issue commissions for ascertaining the interests of persons claiming portions of these lands, and for obliging them to contribute to the drainage thereof, in proportion to such their interest, with this stipulation, that no greater sum than £10 should be levied in one year upon any proprietor. In 1742 the Dublin society applied part of their funds to further the reclamation of bogs, and continued their useful exertions for thirty-three years ; and in 1743 pecuniary and honorary rewards were awarded for the reclamation of 760 acres of bog in Queen's county Westmeath, Tipperary, and Limerick, and much land was brought under tillage, at the same time, for which no premium was sought. The extent of bog in Ireland is calculated at nearly 3,000,000 of English acres, one half the flat red bog, convertible to the general purposes of agriculture, the remainder mountain land, covered by a thin peat, convertible to pasture, or applicable to the growth of timber. These returns were made by commissioners appointed, in the year 1809, to enquire into the nature and extent of the bogs in Ireland ; but their report does not embrace all the bog and waste land in the kingdom. Numerous advantages would result to the public, from the reclamation of the Irish bogs, such as an improvement of climate, increase of public wealth,

employment for a dense and starving population, besides obvious and considerable individual benefit to the proprietors. In addition to the bog returned in 1812 as unprofitable, there are about 300,000 acres covered by the expansions of lakes and rivers, arising from obstructions both natural and artificial, which are daily accumulating: if these bogs and flooded lands were rendered available to agriculture, by reclamation, Ireland would yield about £10,000,000 worth per annum of additional agricultural produce to be disposed of, being nearly the amount yearly expended by England (exclusive of what she now pays to Ireland), upon agricultural importations from foreign countries. Hence it follows, that a market is already provided for this greatly increased product, without in the least deteriorating the present value of arable land.

The Irish red bog consists of a porous, spongy, undulating moss, generated by the capillary attraction of aquatic plants, resting on retentive argillaceous strata called lacklea; impervious to water and favorable to the growth of aquatic plants. The general plan recommended for the reclamation of the Irish bogs, and recovery of flooded lands, is to deepen and widen the bog-streams, and also to deepen, widen, and render navigable, the rivers into which those streams fall; for lowering the beds of the rivers would not only drain the great expansions of lakes and large rivers, but withdraw the water from the bogs also, which bogs have actually been created by the obstructions to the discharge of their superfluous waters. Many of the rivers in Ireland now roll in beds twenty feet above their ancient channels, nor has this change been noticed, because the peaty soil upon their banks has risen *pari passu*. To reclaim the red bog, then, either the bog-stream must be deepened, or a water-course cut of a depth sufficient for the purpose: but this would be useless if the beds of the rivers were previously restored to their former levels. In confirmation of the fact, that the beds of the rivers have risen, the following well authenticated cases may be quoted. The bed of the Inny, in the county of Longford, was ascertained to have risen precisely three feet within the last forty years. At Monineac, in Roscommon, it was fully ascertained that the bed of the bog-stream had risen twenty feet in 120 years, but that did not attract observation, because the elevation of the bog surface was in a like ratio with that of the river's bed. The river Banow also exhibits an irregularity not less remarkable, having altered its course, deserted its ancient channel, and wandered to a distance of three miles from its original bed: and, by another aberration, part of this river has migrated from the county through which it passed in the fifteenth century. The bottoms of many rivers have been proved, by boring, to be superinduced over earlier beds of a totally different formation. A very singular and equally satisfactory case is that of the river Liffey in the city of Dublin. In 1816, in sinking for a foundation for Whitworth Bridge, coins, boats, and various articles, supposed to belong to the early part of the fifteenth century, were discovered at a depth of ten feet below the present bed of the river.

From the same cause, viz. river obstructions, the lakes in Ireland are rising above their ancient levels, and inundating the adjacent country. In the vicinity of Lough Neagh 10,000 acres of land are flooded for nine months in each year, exclusive of which 60,000 are under bog and waste. Lough Mask now stands fifty feet above the level of Galway town, and the inhabitants are only protected against its annual threats of inundation, by a great dyke or embankment. The obstructions in this case are, it is true, partly artificial, arising from mill-dams: but thus, not only are the inhabitants of a large town held in continual peril, but 100,000 acres of rich land are totally sacrificed, and an inland navigation of 200 miles completely destroyed. On the banks of the river Boyne there are 4000 acres of land under water for six months in each year; and in the Barrow district there are 7500; while the river Blackwater in the south, which is now only navigable to Capoquin, Lord Orrery mentions to have been navigable as far as Mallow, forty miles, in his younger days. Enough has now been said to prove the fact, that bogs have originated from river obstructions: that the quantity of flooded land which is estimated as equal to one-tenth of the bog land, is increasing and must continue to do so until channels shall be cut to withdraw the superfluous water; and that, by lowering the beds of the principal rivers, these great evils would be materially mitigated. This then, our first position, being established, the detail of reclamation is but brief in theory. Drainage can be effected either by cutting a deep trench in the bog, or, in preference, by deepening the bog stream. The masses of matter raised, in cleansing the bottom, will be found in many cases to be the most valuable manure for the reclamation of the bog surface, the central bogs of Ireland flowing over soft calcareous bottoms. But to effect this the levels of the adjacent rivers must be lowered, by which depression it is an acknowledged fact that many of them, such as the Inny, the Brusna, and others, would then be rendered important lines of inland navigation. Besides drainage, graveling is recommended; but this and other directions are of minor importance in a view such as the present is intended to be, being more properly practical considerations. Where bog streams cannot be made available, deep canals should be cut, which may sometimes repay the expense of constructing by the sale of the fuel so raised. The town of Papenheim, in Germany, was built by the sale of turf raised in cutting a canal from a noisome bog to the river Ems, and now exists by that trade.

For the accomplishment of so desirable an end, one which a century ago engaged the attention of parliament, great means it is true will be required. The legislature have done much already to forward that end, by the survey of the bogs presented to the public in 1812; what remains for them now to accomplish is the public measure already alluded to, viz. of rendering the great rivers of Ireland navigable, by deepening and widening their channels, thereby enabling private speculation and joint companies to carry their bog streams to a sufficient depth for the dis-

charge of all superfluous water. How far the Board of Inland Navigation, with considerable powers and funds at their control, might facilitate the object, it is not so easy to conclude : but surely when there is a fair prospect of converting 2,000,000 of unemployed, and therefore dissatisfied persons, into industrious subjects—of retaining in England, or, what is preferable, transferring to Ireland, £9,000,000 sterling, now expended among strangers in foreign climates, upon corn, hemp, flax, rape, rye, and wool, all necessary for the manufacture and consumption of England, and when produce to this amount in value, could be raised upon the bog and waste lands of Ireland ; when such consequences appear likely to result, the legislature should at least stand the hazard of the die.

RIVERS.—There are but few rivers in Ireland navigable to any extent : the principal is the Shannon, which nearly divides Connaught from the rest of Ireland. This noble body of water takes its rise from a spring at the foot of Culbagh Mountain in the county of Cavan, 275 feet above sea level. From this well, which is twenty feet in diameter and of great depth, a considerable volume of water descends, by a fall of 115 feet, to Lough Allen in the county of Leitrim, whence, in a distance of 250 miles, its descent is only 160 feet. In the lengthened course of this sluggish river it expands itself into several large lakes, the principal of which, Lough Ree and Lough Davy, vary from two to six miles in breadth, and, until the introduction of the steam boats for towing, their navigation was rather dangerous and extremely tedious. The navigation of this river is now completed by adiutorial cuts in various places, and it is now rendered a source of improvement to the interior of the kingdom, affords a safe and sufficiently expeditious mode of communication, and engenders a spirit of commerce amongst the dense population inhabiting its banks. The Bann, the Boyne, the Lee, the Glancy, the Blackwater, Innis, Brusna, and others, are only navigable for short distances, but are capable of improvement by the means already suggested. The Suir at Waterford is a noble river, and navigable by large boats up to Clonmel. The Nore pours along a great body of water; but its rapidity, and sudden swell and subsidence, have hitherto resisted all attempts at confinement or government. The Liffey, on which Dublin is seated, is only navigable to a distance of one mile from its embouchure : at high water boats pass up two miles farther, but, as it is not connected at that point with any other navigation, this capability is of no advantage.

CANALS, AND INLAND NAVIGATION.—Great facilities for inland navigation, exist in Ireland. The chief canals that have been completed are the *Grand* and *Royal* Canals, both originating in Dublin, the one at the north the other at the south side of the city, and both terminating in the river Shannon ; the one at Tarmonbury in Longford, the other at Banagher in King's County. The length of the main trunk of the Grand Canal from Dublin to Banagher is eighty-seven English miles, but it throws out several branches at Lowtown, near the nineteenth lock, a

branch of twenty-seven miles extends to Athy, passing Rathangan, Monasterevan and Vicars-town. There is also a branch of one mile at Edenderry. The summit level of the great trunk is 263 feet above sea level, and 160 above the Shannon ; its width at bottom is twenty-five feet, and at top forty ; its average depth on the sills is five feet, and in the canal six. The summit level of this canal should be lowered sixteen feet, which would save much lockage, and cause a subsidence in the bog country, from the deep cutting necessary to accomplish this depression. The Royal Canal, from Dublin to Tarmonbury, extends eighty-six English miles and a half, ascending to an elevation of 307 feet above the sea level, and 191 above the Shannon. There are likewise several branches issuing from the main trunk, one from the Broad-stone near Dublin, others to Trim, Kell, Castletown, Delvin, &c. The average depth of water in the Royal Canal is six feet, the width at bottom being twenty-four, and at the surface forty-four. On these great works £2,500,000 of public and private money have been expended, and that they have not realised expectation is attributable to the inactivity of the proprietors of bog land, in the various counties through which this navigation passes, not less than 300,000 acres of waste land lying wholly unproductive, on the banks and in the vicinity of these noble canals, though the navigation has been complete above half a century. Many minor branches of inland navigation, besides those mentioned, are either completed or in progress. The *Barrow* and *Boyne* navigation (the latter of which would multiply its revenue ten fold, if the harbour and river of Drogheda were improved, see DROGHEDA), have long been in full operation. A new branch from the Grand Canal, between Monasterevan and Mountmellick will be opened in the course of the next year (1828). A useful line is also in progress from Shannon Harbour to Ballinasloe ; and a cut of four miles in length, from the town of Longford to the Royal Canal, has been for some time in contemplation.

In the northern counties it has been proposed to open a communication between the great inlets called Lough Foyle and Lough Swilly, an object which could be very readily accomplished and at small expense. A second and more useful line, forty four miles in length, has been contemplated, and the country surveyed and reported on by an eminent engineer, viz. from Derry or Lough Foyle to Ballycassiooly or Lough Erne, four miles from the town of Enniskillen in the county of Fermanagh ; the lake being navigable, this canal would thereby form a water communication from Derry to Beltuchet on the south-east, and to Belleek, within four miles of Ballyshannon, on the west. In the same province a bold and valuable design in inland navigation has also been recommended, and carries such strong characters of utility along with it, that it cannot long remain unexecuted ; that is, the Junction Canal between Lough Neagh and Lough Erne. This line passes through a thickly peopled and manufacturing district close to the towns of Monaghan, Caledon, Clones, and Lougagh. The length of the entire navigation re-

quired is forty-six miles and a half, and the number of locks necessary amounts to twenty-two in the distance, i. e. from Wattle Bridge to Portadown. This admirably chosen line is to be called the Ulster Canal, and the expense of its construction is estimated at £147,738 sterling. For the furtherance of this object the exchequer bill loan commissioners have appropriated £100,000, and many great land holders in Ulster have subscribed to the undertaking. There are, in the same province, the Newry and the Lagan navigations, both important lines, but both much in want of improvement.

There is one more project, which is of such magnitude, and of such obvious utility, connected more properly with the inland navigation of Great Britain, which has lately been suggested, and to which it is supposed the legislature is decidedly favorable; this is the plan of uniting Galway Bay with Kingstown asylum in Dublin Bay, by a great trunk, which the projectors are anxious to have honored with the title of The Royal Ship Canal. The advantages of this design to England would be an abridgment of one-third in the duration of the voyage from America and the West Indies, while the tedious and perilous voyage of the Channel would be avoided. If this great plan be considered in conjunction with the similar projects of England, of ship canals from Bristol to the British Channel, and from Portsmouth to London, it must be acknowledged the noblest succession of inland navigation in the world; a plan which, from the introduction of steam navigation, would render the intercourse between the old and new worlds proportionately as expeditious and just as secure as that now established between town and town in England. The vein of country between Dublin and Galway is peculiarly calculated to facilitate this undertaking. The distance is 133 miles, ninety of which are already cut through by a boat canal from Dublin to Ballinasloe; forty feet wide at the surface. All the central region of Ireland, through which the proposed canal should pass, is nearly a champaign country, the highest level being only 270 feet above the sea; and, by deep cutting, this level could be most readily lowered, whereby nearly 500,000 acres of bog would be effectually drained, and the produce rapidly conveyed to the English market. Whatever funds, subscriptions, or parliamentary grants may afford, would be returned with more certainty, expedition, and profit, than any other improvement, deriving its revenue solely from Ireland, could possibly be expected to do.

HARBOURS.—Few countries in Europe possess either a greater number or more safe and extensive asylums for shipping than Ireland. The harbours on its western and southern coasts have long been proverbial for depth of water, capacity for anchorage, shelter against weather, and facility of ingress and egress. The most remarkable are upon the coast of Connaught, one of which, the *Killeries*, stretches nine miles inland, is but five furlongs broad in the widest, and sixty perches in the narrowest parts, having water to float a first rate man of war at all times of tide. By a reference to M'Kenzie's Chart (the only ge-

neral one of the Irish coast yet in existence) the capabilities of the Connaught Harbours, may be readily seen; but by an inspection of Mr. Ninno's beautiful charts, executed for the Fishery Board, a still more correct idea may be formed of them. M'Kenzie's charts are in many points extremely erroneous; two remarkable instances may be here mentioned: first, they represent Strangford, on the east of Ireland, as a Bar-Harbour, with twelve feet water, while no such thing exists; on the contrary there is a depth of thirty feet across; secondly, the Burford Bank, in Dublin Bay, is totally omitted. If, however, the exertions of the Fishery Board be continued, the naval world will soon be furnished with faithful and correct charts of the Irish coast, which, as specimens of the excellence to which the hydrographic art has been carried, are extremely interesting and honorable to the age. *Bantry Bay* is one of the noblest basins in the world, capable of containing the shipping of Great Britain. *Cove*, the harbour of Cork, is completely land-locked; has deep water at all times, and safe anchorage; nor is it interrupted by any bar or other impediment. Its position as a naval station was acknowledged and experienced during the late French war.

To the swelling tide of the Atlantic the west of Ireland is indebted for her bold and beautiful shores, as well as for her deep-water harbours; the west winds, which blow for nine months in the year, continually rolling in a sea which washes away the alluvial matter, and deepens the rocky basins in its retreat. The heavy sea on this coast appears to have hitherto rendered the western harbours less inviting to the mariner than the dangerous shallows and exposed harbours on the coast opposed to England. Even from this objection, though it is not a substantial one, the harbour of Cove is exempt. The eastern coast possesses but few safe natural asylums for shipping. At Dunmore, near Waterford, a pier is erected, and a packet station established (see *DUNMORE*); at Courtown, midway between Dublin and Waterford, a small harbour has been constructed; and an extensive asylum of 226 acres has been enclosed at Kingstown near Dublin. Other harbours of less consequence have been formed along this line of coast, mostly under the direction of the Fishery Board, who have already given sixty asylums to the boats engaged in fishing, some of them capable of floating vessels of large burden. The north-east coast is still a cheerless prospect to the navigator of the dangerous and rapid-flowing sea between Scotland and Ireland; nor would the construction of useful harbours on this littoral be a work of moderate difficulty or expense.

FISHERIES.—Connected with the harbours of Ireland are its fisheries. This profitable and desirable mode of occupation attracted the attention, and has been favored by the protection, of the legislature, since the year 1819, when the Fishery Board held its first meeting in Dublin. For the better regulation of their works they divided the whole coast into fourteen districts, and appointed local inspectors. The engineer, who was appointed by the lord-lieutenant, has already surveyed the greater part of the coast, and

his valuable reports and charts are now before the public.

To this board is due the merit of giving permanent employment to about 100,000 hands, whose labors support about 400,000 dependents. Besides the erection of piers, formation of harbours, building of breakwaters, &c., this Board have opened new lines of road through the kingdom, the primary object of which was to open the markets to the fishermen on the sea-side: but in this advantage the population generally have also participated. Schools connected with the Board, for the manufacture of nets, building of boats, and where navigation, upon popular principles, might be taught, would possibly be a great auxiliary to the agricultural and horticultural seminaries already mentioned.

R O A D - M A K I N G , R A I L W A Y S , &c.—Besides the encouragement of the fisheries as a means of support, an article of export for English consumption, a source of wealth and employment to the impoverished inhabitants of the coasts, and a nursery for the British navy, whenever their services may be required, there are other and equally important objects claiming public attention, as ministering to the amelioration of the condition of the Irish peasantry. Road-making has been introduced with much advantage: it affords present employment, opens districts before secluded from the world, admits and occasions intercourse, and renders the market accessible to the farmer of the former desolate region. The employment of a few able civil engineers, for some years back, has accomplished much in this way. In Connaught, where roads have been opened through districts thirty miles in length, where no wheeled vehicle had ever been seen, where no communication by post existed, and where it is wonderful the name of England continued to be known, this has more particularly occurred. Towns and villages have suddenly arisen, commerce has raised her drooping banners from the harbours of Connemara; and the town of Clifden, since its birth, just four short years ago, now carries on a direct commercial intercourse with Liverpool. Perhaps there is no part of Ireland in a more rapidly progressive state of improvement than the province of Connaught, all which is attributable to the opening of its recesses by the construction of roads.

The remote parts of Cork and Kerry, unknown until the operations of the Bog Commissioners introduced their engineers to a knowledge of their importance and value, are now thrown open; new and improved lines of road are constructed from Tralee to Dingle, to Caherzeeven and Valentia, to Kenmare by the lakes of Killarney, and from Bantry to Bear Haven and Island, which places are the most westerly points of land in Ireland, serving as useful land-marks to the mariner, but hardly known as the haunts of man. Since the employment of civil engineers the Irish roads have improved more rapidly than those in England; for the great abundance of the best materials renders the task more easy and less expensive to perform; then the skill of the engineer was the only thing required, to select the most judicious line, and to

direct the disposition of the materials. The introduction of rail-ways into Ireland has been but of slow operation; the extent of her manufactures not demanding their adoption. In one line of country, however, a considerable commercial intercourse, now conducted by a circuitous and difficult navigation, might be advantageously and profitably carried on by this mode of transportation. For this purpose a rail-way is proposed to connect Limerick and Waterford, two of the most prosperous trading towns in Ireland, extensively occupied in the provision trade. The length of the principal line is seventy-six miles, having an ascent to its summit level of 279 feet eight inches; and the estimated expense is £165,000. Collateral branches are also intended to Cashel, Killenaule, and Thurles. Funds, to the amount of £45,000, have already been advanced by government, to assist this great provincial undertaking.

A second rail-way has been suggested, but not of equal length, though likely to yield a high rate of interest to subscribers; this line is to run from Mallow to Cork. In speaking of the present state of Ireland, although it may appear that existing institutions only should be described, yet would it not be unfair to pass by those which, now in embryo, will speedily start into life, and whose infancy will require some fostering care? Such are the Ulster Canal, The Royal Ship Canal, and Waterford Railway; and such also is the proposed Valentia Steam-Navigation Company. There is in the south-west of Ireland an island, called by a Spanish name Valentia, so attractive by the commodious harbour and safe lying between it and the mainland, for ‘*Insula efficit portum*,’ in a channel but half a mile wide, that Oliver Cromwell erected forts at each end of the channel, duly estimating the security within; and, in queen Anne’s wars, the French privateers, no incompetent judges, selected this channel as their safe retreat. The American and Colonial Steam Navigation Company contemplate establishing a packet station here, to communicate, by regular monthly voyages, with Nova Scotia; the passage could be made, with tolerable certainty, in one fortnight, and coals could be stored at Valentia, while an ample supply exists on the American side. For the furtherance of the objects of this company two acts of parliament have already been obtained.

T H E I R I S H C H U R C H .—Church property, in Ireland, appears unequally and injuriously disposed: its better arrangement should be made the subject of serious consideration. Church property should be, at least, as sacred as any other; therefore it is not meant that the quantity should be infringed upon; but, if its present partition be injurious to the interests of the church, and not beneficial to the condition of society, and the improvement of the country generally, another disposition should be made. As to the collection of tithes, the cause of so many unhappy disturbances, Mr. Goulbourn’s bill, like the wand of the Irish Saint, has banished the serpent from the land. The tithe proctor is now almost unknown; deeds of blood have been succeeded by a friendly intercourse between the

pastor and his parish; and the plough of the husbandman goes prosperously and peacefully forward. Of about 2500 parishes, 1000 had compounded for their tithes in September 1827, and others were in progress of composition (a sufficiently convincing proof of the utility of the bill); and perhaps the returning appearance of tranquillity to the disturbed counties at the same period may not be altogether disconnected with its operation. When disproportionate arrangements of church property are mentioned, parochial glebe or property alone is alluded to. In the four dioceses of Fuam, Killalla, Elphin, and Clonfert, that is, in the whole province of Connaught, parochial glebe does not amount to 2000 acres; and, in the province of Munster, it amounts only to 7000: while, in Ulster, the quantity of parochial glebe is not less than 72,000 acres. Now the system at present adopted by the heads of the church, and one which cannot be too highly applauded, is to sever the different unions of parishes, upon their vacations by death or preferment; but, the question naturally suggests itself, how are the incumbents of the different members into which the union has been separated to be provided for? perhaps the following suggestions may lead to a satisfactory answer.

Much of the rectorial tithes is now in the hands of laymen, of bishops, and of other church dignitaries. Many of the laymen contribute nothing whatever to the support of the parochial clergy; many more grant a miserable stipend; while the churchmen allow only the sum enforced by the law; although a case has lately occurred in which a learned dignitary, upon his elevation to a mitre, voluntarily raised the salaries of the curates, vicars, &c., of those parishes, the rectorial tithes of which were in his own possession. As to the lay proprietors, it is but reasonable that they be compelled to allow a salary, at least equal to that which the clerical ruler is obliged by law to grant, for the performance of the duty of his parish: whereas we find in many cases no allowance whatever made to the vicar; and one case, laid before the public in 1810, and not noticed since, states that the lay lord formerly allowed £4 per annum, out of his rectorial tithes, for the performance of his parochial duties, but had then withdrawn even that sum. In many dioceses a great proportion of the episcopal income is derived from tithes; but, in this case, the remedy is suggested, and has been applied by the learned and liberal dignitary mentioned above, whose example, no doubt, will instruct his brethren.

IRELAND, New, a long narrow island of the eastern seas, first visited by Carteret, who discovered its separation from New Britain by a channel, named by him St. George. Sailing along the south coast, for eighty leagues, he observed 't to be in general elevated. His Gower Harbour is the port Praslin of Bougainville, where the latter navigator discovered the pepper plant. Near Carteret Harbour Labillardière observed mountains partly composed of marine substances, and one of whose inland summits

thus the church establishment appears capable of much improvement, at the same time that any additional burden for its support can be totally avoided by the partial restoration of the rectorial tithes to the parochial clergy, which can be made without the least private grievance, or injustice. Nor is precedent wanted for such a step: on 28th May, 1824, amongst other matters, parliament resolved that the rectorial tithes then vested in the chancellor, archdeacon, and precentor, of the chapter of Connor (in the county of Antrim), should, on the decease of the incumbent dignitaries, be re-annexed and restored to the vicarages, or vicarial parishes, to which they formerly belonged. In this way then it is possible, that, upon the dissolution of the great church unions, and erection of new churches, adequate support might be provided for the curates and vicars of the subdivisions.

In fine, then, the natural soil of Ireland is abundantly rich, the internal mineral wealth is considerable, the population great, and the climate healthy. The arable land yields its fair proportion to the support of the population, and of legal institutions:—and the landed proprietors of the bogs and waste lands are the principal persons, in whose power it lies to give immediate and permanent employment to the peasantry, in the reclamation and subsequent cultivation of the bogs, whereby, possibly, poor rates may be avoided.

The mines are now beginning to repay the subscribers, and give constant occupation to thousands. And although the coal mines of England have always given her a manufacturing advantage, particularly since the introduction of steam, yet even in this point Ireland possesses an equivalent in the great power of her rivers: the daily waste of water power at one fall, on the river Shannon, being equal to the sum of the united powers of all the steam engines in England; i. e. to the power of about 300,000 horses: and, the fall of Lough Erne, at Belleek, being equal to half that quantity. Such extensive tracts of land, amounting in flooded, waste, and bog lands, to 5,000,000;—such powers as those of the Irish rivers, exceeding that of all the machinery in Europe, cannot remain much longer inactive;—and such a population as the Irish cannot continue without exertion. Certainly the employment of the peasantry, at home, should be attempted, by the legislature, previously to the establishment of any systematic plan of emigration; for,

‘A bold peasantry, their country’s pride,
If once destroyed, can never be supplied.’

has an elevation of 3000 feet. Here were met the enormous bat named *vespertilio vampyrus*, and the bread-fruit tree; and on Cocoa-nut Island of Carteret, which forms the harbour, and which is a mass of calcareous rock, were found the *borringtonia speciosa*; the *pandanus*, a species of *areca palm*, 140 feet high, with a very slender stem; a very large species of *solanum*; the teak; and several gum-trees. The sago palm and bastard nutmeg were also noticed on the shores of this harbour.

The natives are Papuas, who go entirely naked, smearing their faces, and powdering their heads with white clay: their ornaments are strings of shells and teeth; their arms bows and arrows, spears, clubs, and shields; their huts have only an opening to crawl in on their hands and knees. Their canoes, however, are neatly formed of a single tree, sometimes ninety feet long, and furnished with outriggers.

IRELAND (John), a modern writer on works of art, was a native of Shropshire, and originally a watch-maker in the metropolis. Here he became a print and picture-dealer. He died at or near Birmingham in 1808. His publications are, *The Emigrant*, a poem, 1785, 4to.; *Letters and Poems*, by John Henderson, with Anecdotes of his Life, 1786, 8vo.; and *Hogarth illustrated*, 1791, 3 vols. 8vo.

IRELAND (Samuel), a silk-manufacturer in Spitalfields, became a speculator in scarce books, prints, &c., and published a multitude of picturesque tours, in England and on the Continent, embellished with aquatint engravings; but his chief claim to notice arises from his bringing forward the publication entitled *Miscellaneous Papers and Legal Instruments*, under the hand and seal of William Shakspere, including the Tragedy of King Lear, and a small fragment of Hamlet, from the original MSS. London, 1796, folio. Of a wilful share in this experiment on the credulity of the public he was acquitted, by the declaration of the acknowledged forger of these papers, his son, in an *Authentic Account of the Shakspere MSS.*, which appeared in 1796, 8vo.; and in a subsequent account of the fabrication of the MSS., published under the title of *Confessions*, in 1805, 8vo. Samuel Ireland died in 1800.

IRENAEUS (St.), bishop of Lyons, was born in Greece about A.D. 120. He was the disciple of Papias and St. Polycarp, by whom, it is said, he was sent into Gaul in 157. He stopped at Lyons, where he performed the office of a priest; and in 178 was sent to Rome, where he disputed with Valentinus, and his two disciples Florinus and Blastus. On his return to Lyons he succeeded Photinus, bishop of that city; and suffered martyrdom in 202, under Severus. He wrote many works in Greek, of which there remains only a barbarous Latin version of his five books against heretics, some Greek fragments in different authors, and Pope Victor's letter mentioned by Eusebius. The best editions of his works are those of Erasmus, in 1526; of Grabe, in 1702; and of F. Massuet, in 1710. St. Irenaeus's style is close, clear, and strong, but plain and simple. Dodwell wrote six curious dissertations on the works of St. Irenaeus.

IRENEUS (St.), a deacon, who, in 275, suffered martyrdom in Tuscany, under the reign of Aurelian.

IRENAEUS (St.), bishop of Sirmich, suffered martyrdom on the 25th of March 304, during the persecution of Dioclesian and Maximianus.

IRESINE, in botany, a genus of the pentandria' order, and diœcia class of plants; natural order fifty-fourth, miscellaneæ. Male cal. diphylloous : cor. pentapetalous ; nectaria five. Female diphylloous : cor. pentapetalous ;

there are two sessile stigmata : caps. with flocy seeds. Species one only, a native of the West Indies.

IRIDESCENT, from Iris, Lat., in mineralogy, optics, &c., exhibiting the colors of the rainbow.

IRIDIUM, in chemistry, from ἵρις, the rainbow, a name given by Mr. Tennant, to a metallic substance he discovered in the dross of platinum, on account of the striking variety of prismatic colors it exhibits while dissolving in muriatic acid. Mr. Tennant, on closely analysing the black powder left after dissolving platinum in nitro-muriatic acid, which had been supposed to consist chiefly of plumbago, found it to contain two distinct metals, never before noticed, which he named iridium and osmium. To analyse the black powder, Mr. Tennant put it into a silver crucible, with a large proportion of pure dry soda, and fused the mixture for some time. The alkaline mass being then dissolved in water, it had acquired a deep orange or brownish-yellow color, but much of the powder remained undissolved. This, on being digested in muriatic acid, afforded a dark-blue solution, which afterwards became of a dusky olive-green; and finally, by continuing the heat, of a deep red color. The residuum, being treated as before, with alkali and the acid alternately, the whole appeared capable of solution. As some silex continued to be taken up by the alkali, till the whole of the metal was dissolved, it seems to have been chemically combined with it. The alkaline solution contains oxide of osmium. The acid solution contains both the metals, but chiefly iridium. By slow evaporation it affords an imperfectly crystallised mass; which, being dried on blotting paper, and dissolved in water, gives by evaporation distinct colorless octohedral crystals. The iridium may be obtained pure, by exposing these crystals to heat, which expels the oxygen and muriatic acid. The metal itself is white, and could not be melted by any heat Mr. Tennant could employ. It does not easily combine with sulphur, or with arsenic. Lead unites with it easily, but is separated by cupellation, leaving the iridium on the cupel in the form of a coarse black powder. Copper forms with it a very malleable alloy, which, after cupellation, with the addition of lead, leaves a small proportion of the iridium. Silver forms with it a perfectly malleable compound, the surface of which is merely tarnished by cupellation. Gold remains malleable, and little altered in color, though alloyed with a considerable proportion; nor is it separable either by cupellation or quartation. If the gold or silver be dissolved, the iridium is left as a black powder. The French chemists observe, that this new metal gives a red color to the triple salt of platinum and sal ammoniac, is not altered by muriate of tin, and is precipitated of a dark brown by caustic alkali. Vauquelin has succeeded in forming sulphuret of iridium, by heating a mixture of ammonia, muriate of iridium, and sulphur. It is a black powder consisting of 100 iridium + 33.3 sulphur; whence, supposing it a neutral compound, the prime equivalent iridium would be 6.0. In the year 1805 Dr. Wollaston discovered a native ore of iridium,

composed of that metal and osmium alloyed together; it occurs in alluvial soil in South America, in the form of small white grains along with the ore of platinum. It is heavier than crude platinum, having a specific gravity of 19·25, whereas the native ore of platinum has a specific gravity seldom exceeding that of 17·6.

I'RIS, *n. s.* Gr. ἵρις. The rainbow; any appearance of light which resembles it; the circle round the pupil of the eye; the *fleur-de-lis*.

Iris all hues, roses and jessamine. *Milton.*

Beside the solary *iris*, which God shewed unto Noah, there is another lunary, whose efficient is the moon. *Brown.*

When both bows appeared more distinct, I measured the breadth of the interior *iris* 2 gr. 10^v; and the breadth of the red, yellow, and green in the exterior *iris*, was to the breadth of the same colours in the interior as three to two. *Newton's Opticks.*

Those who weep not for kings shall weep for thee,
And Freedom's heart, grown heavy, cease to hoard
Her many griefs for one; for she had poured
Her orisons for thee, and o'er thy head
Beheld her *Iris*. *Byron. Childe Harold.*

I'RIS, in botany, the *fleur-de-lis*, or flag flower, &c., a genus of the monogynia order, and triandria class of plants, natural order sixth, ensatae: cor. divided into six parts; the petals alternately reflexed; the stigmata resembling petals. There are fifty-six species, all herbaceous flowering perennials, both of the fibrous, tuberous, and bulbous rooted kinds, producing thick annual stalks from three or four inches to a yard high, terminated by large hexapetalous flowers, having three of the petals reflexed quite back and three erect; most of which are very ornamental, appearing in May, June, and July. All the species are easily propagated by offsets from the roots, which should be planted in September, October, or November, though almost any time from September to March will do. They may also be raised from seed, which is the best method for procuring varieties. It is to be sown in autumn, soon after it ripens, in a bed or border of common earth, and raked in. The plants rise in spring, and are transplanted next autumn. The roots of the Florentine white iris, when dry, are supposed to have a pectoral virtue. They have an agreeable smell, resembling that of violets; and hence are used in perfumes, and in flavoring liqueurs. When recent, they have a bitter, acrid, and nauseous taste; and when taken prove strongly cathartic; on which account they have been recommended in dropsies, in the dose of three or four scruples. The juice of the species called bastard acorus, or yellow flag flower, is also very acrid, and has been found to produce plentiful evacuations from the bowels when other means had failed. For this purpose, it may be given in doses of eighty drops every hour or two; but the degree of its acrimony is so uncertain, that it can hardly ever come into general use. Goats eat the leaves when fresh; but cows, horses, and swine refuse them. Cows will eat them when dry. The roots are used in the island of Jura for dyeing black. The roots or bulbs of a species growing at the Cape are roasted in the ashes, and used as food by the natives: they are called *oenkjes*, and have nearly

the same taste with potatoes. The Hottentots use the word *oenkjes* in the same sense in which Virgil used *aristæ*, i. e. for reckoning of time; always beginning the new year whenever the *oenkjes* push out of the ground, and marking their age and other events by the number of times in which in a certain period this vegetable has made its appearance. The Siberians cure the venereal disease by a decoction of the root of the *Iris Siberica*, which acts by purging and vomiting. They keep the patient three days in a stove, and place him in a bed of the leaves of the *arctium lappa*, or common burdock which they frequently change till the cure is effected.

I'RIS is also applied to those changeable colors which sometimes appear in the glasses of telescopes, microscopes, &c., so called from their similitude to a rainbow. The same appellation is also given to that colored spectrum, which a triangular prismatic glass will project on a wall, when placed at a due angle in the sun-beams.

I'RIS, in mythology, the daughter of Thaumas and Electra, one of the Oceanides, the goddess of the rainbow, and messenger of Juno, whom she attended. She was supposed to supply the clouds with water, colors, &c.

IRISH BIBLE. Our article **BIBLE** will be found to contain an account of the formation and preservation of the sacred canon. The efforts of piety and benevolence in supplying the sister island of Ireland with the Scriptures, in the vernacular tongue, we have deemed worthy distinct treatment.

Some scattered passages of Scripture in the Irish language are found in those celebrated Irish records (*Leabhar Breac* and *Leabhar Leacan*) to which the learned O'Brien often refers in his Irish Dictionary. The style of these fragments is very ancient; but their exact date is unknown. In 1577 Nicholas Walsh, chancellor of St. Patrick's Dublin, was created bishop of Ossory. Soon after his appointment he commenced the translation of the New Testament; and procured the assistance of Nehemiah Donellan, and John Kearney treasurer of St Patrick's. They had made some progress in the work; but the completion of this noble design was prevented by the murder of the bishop in 1585. See *Ware's Irish Bishops of Ossory*.

Fifteen years after W. Daniel (or O'Donnell), fellow of Trinity College, and afterwards archbishop of Tuam, with the help of other learned men, translated the New Testament and the book of common prayer. O'Donnell was particularly qualified for this undertaking by his profound knowledge of the Hebrew, Greek, Latin, and Irish languages. The work was completed and published in 1602, Sir W. Usher (clerk of the council) bearing the expense of printing. See *Vallancy's Collectanea*, vol. iii., and *Ware's Archbishops of Tuam*.

It is only to be regretted that this excellent scholar did not extend his labors to the Old Testament. He seems, unfortunately for Ireland, to have been the only translator who has hitherto attempted to render the Scriptures into the vernacular tongue direct from the inspired originals.

The next laborer in this field was Dr. William Bedell, appointed bishop of Kilmore in 1629. He undertook the arduous task of translating the Old Testament. And, although he understood the Irish language very well, yet, as it was not his native language, he chose for his assistant (by the advice of the primate) one King (who had been converted from the Roman Catholic Religion some years before), ordained him, and gave him a living. King was a good scholar, but did not understand Hebrew (*Acta Erud.* Leipsic, 1686): and is said to have been the best Irish writer of his time; but bishop Bedell, unwilling to entrust so important a work entirely to the care of one man, tasked himself to read a chapter of the translation every day, comparing it with the English, the Septuagint, the Italian translation of Diodati, and the Hebrew. But neither his learning nor his piety could save bishop Bedell from the malice of his enemies; he was persecuted; King was degraded, fined, and imprisoned; and the translation, which they had finished, lay neglected in MS. for many years. *Burnet's Life of Bedell*, third edition, p. 91—107.

The celebrated Robert Boyle, son of the earl of Cork, first effected the printing of this work. He caused a set of Irish types to be cast, and a printer to be taught the characters and mode of printing in that language. The New Testament was executed at his sole cost: it was published in 1681, and 500 copies given to the poor. He began a subscription for printing the Old Testament, by a donation of £50, and used all his influence to get it completed, which was accomplished in 1685: By what means he procured the MS. may be seen in his letters.

For the use of the Scotch, the Old and New Testaments were printed in the Roman character, and published in 1690. It appears, by comparison, that the editor (R. Kirk) copied Boyle's edition closely; not a single alteration of importance is to be found. Kirk, however, added contents to the chapters, and a short Vocabulary.

Such is the history of the existing translations of the Irish Scriptures.

Early in its career the British and Foreign Bible Society was anxious to extend the benefits of its labors to this benighted part of the empire; and opened a correspondence, upon the subject of reprinting the Irish New Testament, with various intelligent persons in Ireland, from many of whom the proposal met with marked discouragement; the result, however, was that they proceeded to print, in the year 1810, the Irish New Testament in the Roman character, from the edition published under the patronage of Mr. Boyle. The Society having procured a competent Irish scholar to edit the work, it was stereotyped, and six new editions of it have been published, amounting in the whole to 17,000 copies.

In the year 1816 the same Society printed the Irish Bible, from the version of Bishop Bedell, which was also in the Roman character, consisting of 5000 copies.

Subsequently to the publication of the above works, as the number of readers was rapidly

increasing in those parts of Ireland where the Irish is currently spoken, the Anglo-Hibernians began to encourage the people to read their native language; and unitedly urged upon the Society the necessity of printing the Scriptures in the ancient Irish character; in consequence of which the New Testament of the same version was stereotyped in that character in the year 1818, and has gone through six editions, amounting in the whole to 25,000 copies.

The British and Foreign Bible Society has also in the press an edition of Bedell's Irish Bible, in the ancient Irish character, consisting of 5000 copies, which is nearly completed, and which it is expected will be much in demand. A Committee of revision has been for some time engaged in carefully examining and correcting it.

The Hibernian Bible Society in Dublin are also printing a pocket edition of the Irish Bible, which is stereotyped. In aid of this work the British and Foreign Bible Society granted to that Society the sum of £300.

IRK, *v. a.*

IRK'SOME, *adj.*

word is used only im-
IRK'SOMENESS, *n.s.* personally, it irks me; mihi pñne est, it gives me pain; or, I am weary of it. Thus the authors of the *accidense* say, tñdet, it irketh: irksome, tedious; troublesome: irksomeness, wearisomeness.

Come, shall we go and kill us venison ?
And yet it irks me the poor dappled fools
Should in their own confines, with forked heads,
Have their round haunches gored. *Shakspeare.*
It irks his heart he cannot be revenged. *Id.*

IRKOUTSK, a government of Russia, comprising all the eastern part of Siberia. The empress Catherine gave it the privileges of a state, and divided it into four separate oblasti or districts, Irkoutsk Proper, Nertschink, Yakoutsk, and Okhotsk. The two first comprehend the fertile districts round the lake Baikal, and near the sources of the Lena. Yakoutsk consists chiefly of those vast and frozen plains which extend northwards to the Arctic Ocean. Okhotsk extends along the eastern shore of Asia, and includes Kamtschatka, and the Aleutian and Kurile islands. The government of Irkoutsk is thus bounded on the east by the Pacific Ocean, or more properly by its gulf, called the seas of Kamtschatka, Okhotsk, and Anadyr; on the north by the Frozen Ocean; on the west by Tobolsk; and on the south by vast chains of mountains, continued from the Altay, under the appellations of the Sayanskies, Yablonoy, and Slanavoy mountains, which separate it from the vast regions of Chinese Tartary. It extends about twenty-eight degrees from east to west, and twenty-five from north to south, and comprises 126,460 square geographical miles. The only large river is the Lena, which traverses it in its whole extent from north to south. The Olo-nek, the Indigirka, and the Kovyma, are rivers which fall into the Icy Sea.

A considerable proportion of the inhabitants are Russians and Cossacs, who are colonists, or merchants, or employed in the military and civil service. In the southern parts are several Mongol tribes. Of the natives, the most numer-

ous ar. the Tunguses, who are divided into pastoral, hunting, and fishing tribes.

The Aleutian and Kurile islands have races peculiar to themselves. The expenses of the civil government of this territory amount to 275,000 rubles, besides 7200 which are spent in maintaining the intercourse with China. There is an archbishop of Irkoutsk; and in the government 101 churches, and ten convents. Inhabitants about 400,000.

IRKOUTSK Proper (the circle or district of), has the Baikal Sea and the Mongolian Mountains on the east and south, the province of Tobolsk on the west and north. It is nearly encircled by mountains, and the land low and swampy. A great part of it, however, is extremely fertile, and fit for all the purposes of agriculture. It is

traversed by numerous rivers, the Angara, the Oka, the Irkut, the Hun, and others, which flow from the Baikal and the surrounding mountains. The country is subject to earthquakes.

IRKOUTSK, a city of Russia, the capital of the above government, is situated on the right bank of the Angara. Of 1500 houses, it has only two of stone, the rest being of wood: the streets are unpaved. It contains two cloisters and thirty-three churches. Here is a seminary, a popular school, and since 1762 a school for the Japanese language and for navigation: also an hospital for the small-pox. Irkoutsk possesses great commercial importance, from its being the centre of the trade between Russia and China. It appears half a Chinese Town. Population 13,000. Long. 103° 30' E., lat. 52° 16' 41" N.

I R O N.

IRON, *n. s., adj. & v. a.* *Sax. iren; Fr.*

IRONMONGER, n. s. *fer;* *Lat. ferrum;*

IRON-WOOD, n. s. *Span. hierro.* A

IRON-WORT, n. s. *metal common to*

IRONY, adj. *all parts of the*

world; considerably the hardest, and, except tin, the lightest, and when pure naturally mall able. See below. An instrument made of iron, as a flat iron, box iron, smoothing iron; in this sense it has a plural: a chain; a manacle; as, he was put in irons: iron, made of iron; resembling iron: figuratively, harsh; severe; rigid; miserable; calamitous: as, the iron age, for an age of hardship and wickedness. These ideas may be found more or less in all the following examples. Indissoluble; impenetrable; iron, to smooth with an iron, or to shackle with irons: ironmonger, one who deals in iron articles: ironwood, a kind of wood extremely hard, and so ponderous as to sink in water. It grows in America.—Robinson Crusoe. Irony, made of or partaking of iron.

If he smite him with an instrument of iron, so that he die, he is a murderer. *Numbers xxxv. 16.*

Cans't thou fill his skin with barbed irons, or his head with fishspears? *Jub. xli. 7.*

His feet they hurt with setters: he was laid in irons. *Psalms.*

This noble ensample to his shepe he yof,—
That first, he wrought; and, afterward, he taught,
Out of the gospel he the wordes caught,
And this figure he added yet thereto,
That if golde ruste, what shuld iren do?
For if a preest be foule, on whom we trust,
No wonder is a lewed man to rust.

Chaucer. Prologue to Canterbury Tales.

I will converse with iron witted fools,
And unrespective boys: none are for me,
That look into me with considerate eyes.

Shakspeare.

In iron walls they deemed me not secure. *Id.*

The force they are under is real, and that of their fate but imaginary: it is not strange if the iron chains have more solidity than the contemplative.

Hammond's Fundamentals.

O sad virgin, that thy power
Might bid the soul of Orpheus sing
Such notes as warbled to the string,
Drew iron tears from Pluto's cheek,
And made hell grant what love did seek. *Milton*

The power of drawing iron is one of the ideas of a loadstone, and to be so drawn is a part of that of iron. *Locke.*

Rash Elpenor, in an evil hour,
Dried an immeasurable bowl, and thought
T' exhale his surfeit by irriguous sleep,
Imprudent; him death's iron sleep opprest. *Phillips.*

In all my iron years of wars and dangers,
From blooming youth down to decaying age,
My fame ne'er knew a stain of dishonour. *Rowe.*

Some springs of Hungary, highly impregnated with vitriolic salts, dissolve the body of one metal, suppose iron, put into the spring; and deposit, in lieu of the iron particles carried off, coppery particles. *Woodward on Fossils.*

Some of them are of an iron red, and very bright. *Id.*

A piece of stone of a dark iron grey colour, but in some parts of a ferruginous colour. *Woodward.*

In a piece of iron ore, of a ferruginous colour, are several thin plates, placed parallel to each other. *Id.*

Jove crush the nations with an iron rod,
And every monarch be the scourge of God. *Pope.*

Till at death's toll, whose restless iron tongue
Calls daily for his millions at a meal,
Starting, I woke, and found myself undone. *Young's Night Thoughts.*

These limbs
Will yield with age to crushing iron; but
There's that within my heart shall strain your engines. *Byron.*

IRON, in chemistry and mineralogy, is the most abundant as well as the most useful of the metals. It is very generally diffused throughout the globe, being found mixed with all kinds of sand, clay, chalk, or stone, in the ashes of vegetables, and the blood of animals. Its color is a livid white, approaching to gray, and when broken it appears to be composed of small facets. It is susceptible of a very fine polish, and next to platinum of all metals the most difficult of fusion. In some states it is superior both in elasticity and hardness to all other metals, and it has the additional advantage of suffering this hardness to be increased or diminished at

pleasure by certain chemical processes. Its tenacity is greater than that of any other metal, except gold : an iron wire, the tenth part of an inch in diameter, has been found capable of sustaining more than 500 lbs. without breaking. Its ductility is such as to allow it to be drawn into wire as fine as hair. But these and other properties of this metal vary with the method of preparing it, the ore from which it is obtained, and the degree of purity to which it is brought.

In this article, however, it is our intention to confine ourselves to the mineralogical and chemical properties of this metal ; under the title IRON MANUFACTURE giving a description of the usual mechanical methods of obtaining it from its various ores ; and of the principal uses to which iron is applied ; while the reader is referred to STEEL for the various branches of that manufacture.

In this paper we shall first notice the ores of iron, following the arrangement of Kirwan, and then detail its chemical combinations. Native iron, formerly supposed not to exist anywhere, is now known to have been met with in several places. It is, however, by no means common, but occurs sometimes in iron mines. Margraff found a fibrous kind of it at Eibenstock in Saxony, and Dr. Pallas found a mass in Siberia, weighing 1600 lbs. Mr. Adanson likewise informs us, that native iron is common about Senegal; but some naturalists are of opinion that these pieces, which have been taken for native iron, are in reality artificial, and have been accidentally buried in the earth. The large piece mentioned by Dr. Pallas is of that species called red short, which is malleable when cold, but brittle when red-hot. A mass of a similar nature was found in South America, in the district of St. Jago del Estero, in a wide extended plain. Some private persons visited this mass, and sent a specimen of the metal to Lima and Madrid, where it was found to be very pure soft iron. As it was reported that this mass was only the extremity of an immense vein of the metal, a commission was given to Don Michael Rubin de Celis to examine the spot ; and the following is an abstract of his account :— “The place is called Otunipa, in lat. $27^{\circ} 28' S.$ and the mass was found almost buried in pure clay and ashes. Externally it had the appearance of very compact iron; but internally was full of cavities; as if the whole had been formerly in a liquid state. I was confirmed in this idea, says our author, by observing, on the surface of it, the impression of human feet and hands of a large size, as well as of the feet of large birds which are common in this country. Though these impressions seem very perfect, yet I am persuaded, that they are either a lusus naturæ, or that impressions of this kind were previously upon the ground, and that the liquid mass of iron falling upon it received them. It resembled nothing so much as a mass of dough; which having been stamped with impressions of hands and feet, and marked with a finger, had afterwards been converted into iron. On digging round the mass, the under surface was found covered with a coat of scoriae from four to six inches thick, undoubtedly occasioned by the

moisture of the earth, because the upper surface was clean. No appearance of generation was observed in the earth below or round it to a great distance. Its weight might be estimated at about 300 quintals. It is likewise an undoubted fact, that in these forests there exists a mass of pure iron in the shape of a tree with its branches.”

In the reign of the emperor Ichaugire, a similar mass fell in India : a violent explosion was heard at a village in the Punjab, and at the same time a luminous body fell through the air on the earth. The officer of the district immediately repaired to the spot where it was said the body fell, and, having found the place to be hot, he caused it to be digged, on which he found the heat kept increasing till they reached a lump of iron violently hot. This was sent to court, where the emperor had it weighed in his presence, and ordered it to be forged into a sabre, a knife, and a dagger; the workmen reported it was not malleable, but shivered under the hammer; and that it required to be mixed with one-third part of common iron, after which the mass was found to make excellent blades. A piece of native iron, of two pounds weight, has been also met with at Kamsdorf, in the territories of Neustadt, which is still preserved there. These masses evidently did not originate in the places where they were found. The native iron said to have been found about Senegal has a cubical form; and out of this the black inhabitants make different kinds of vessels for their own use. Some masses have been found in a polyhedral granulated form, and of a bright yellow color; but which, on being polished, show the proper color of the metal.

The following description and analysis of some similar masses is given by Boussingault :—

“On our arrival at Santa Rosa, a village on the road from Pamplona to Bogota, says this writer, we were told that an iron mine had been discovered in its vicinity, and that a specimen of the mineral was serving as an anvil to a blacksmith. On inspection, we were agreeably surprised to find that this specimen possessed all the characters of meteoric iron. This mass was found upon the hill of Tocavita, at the distance of a quarter of a Spanish league to the east of the village in 1810, by a native of the place. We went to examine the hill, where we still saw the cavity which was made at the time the mass was taken out, and which, when found, was nearly buried, and only visible to the extent of a few inches. The formation of the hill of Tocavita belongs, like that of Santa Rosa, to a secondary sandstone, and is observed to a considerable extent. The latitude of Santa Rosa is $5^{\circ} 40' N.$, and the longitude $75^{\circ} 40' W.$ of Paris; its height above the level of the sea is 2744 metres. The inhabitants joined in getting this mass to the village, where it was deposited at the town-house for seven years; and seven years after that, till our arrival, it was used by the blacksmith. This iron contains cavities, but we have found no vitrified traces in them; it is malleable, and can be cut; its structure is granular, its lustre of a silver white, and the specific gravity 7.3. The weight of this mass

was much exaggerated by our informants; but, judging from its diameter, notwithstanding the irregularity of the surface, it will be found that its volume is nearly 102 cubic decimetres, and consequently its weight must approach 1580 pounds.

By analysis this iron gave, in a mass of 7·18 grains, oxide of iron 9·46, oxide of nickel 0·75, residue insoluble in nitric acid 0·02: 100 parts gave iron 91·23, nickel 8·21, residue 0·28. The residue is insoluble in the nitric acid, and is hardly acted upon by the nitro-muriatic acid even in a state of ebullition. It seems to be composed of nickel and iron, and perhaps may contain a little chrome. Another mass weighing 561 grammes, also found near Santa Rosa in the year 1810, is of a porous structure, malleable, very hard to file, with the metallic silvery lustre, and its grain similar to that of fused steel: 1·98 grains gave oxide of iron 2·62, oxide of nickel 0·16: 100 parts, iron 91·76, nickel 6·36. The nickel may be traced in many other specimens, which were found with the preceding about the same time, in the vicinity of Santa Rosa; the largest weighed 145 grammes. But it is not only in the neighbourhood of Santa Rosa that iron has been met with in a metallic state: we shall therefore still mention two masses, which were discovered at some distance from the salt-mine of Zipaquirá, at a spot named Rasgatá. The one weighs forty-one kilogrammes, is without traces of cavities, very malleable, of a structure composed of very minute planes, yielding with difficulty to the file, of a metallic lustre, and having its specific gravity = 7·6. 4 grains gave oxide of iron 5·23, oxide of nickel 0·40: 100 parts gave iron 90·76, nickel 7·87. The other mass weighs twenty-two kilogrammes, is very porous, almost spheroidal, a very malleable iron, of a foliated texture, and its silvery lustre gives it the aspect of certain irons, glossed with white. It seemed to contain from seven to eight per cent. of nickel. Zipaquirá, in the limits of which these last masses were found, is in lat. 4° 57' N., and long. 76° 33' W. of Paris. Its elevation above the level of the sea is 2650 metres.

The following are M. John's analyses of meteoric iron:—

	Iron of		
	Pallas.	Elbogen.	Humboldt.
Iron	90·0	87·5	91·5
Nickel	7·5	8·75	6·5
Cobalt	2·5	1·85	2·0
Chromium	trace.	0·0	trace.
Manganese	0·0	1·9	0·0
	100·0	100·0	100·0

The subjoined list contains, we believe, all the principal masses of native meteoric iron at present known.

SECT. I.—*Spongy or cellular masses containing nickel.*—1. The mass found by Pallas in Siberia, to which the Tartars ascribe a meteoric origin. *Voyages de Pallas*, tom. iv. p. 545, Paris 1793. 2. A fragment found between Eibenstock and

Johannegeorgenstadt. 3. A fragment probably from Norway, and in the imperial cabinet of Vienne. 4. A small mass weighing some pounds, and now at Gotha. 5. Two masses in Greenland, out of which the knives of the Esquimaux were made.

SECT. II.—*Solid masses where the iron exists in rhombooids or octohedrons, composed of strata, and containing nickel.*—1. The only fall of iron of this kind is that which took place at Agram in 1751. 2. A mass of the same kind has been found on the right bank of the Senegal.—*Compagnie, Forster, Goldberry.* 3. At the Cape of Good Hope; Stromeyer has lately detected cobalt in this mass.—*Van Marum and Dankelman; Brande's Journal*, vol. vi. 162. 4. In different parts of Mexico. Sonneschmidt, Humboldt, and the *Gazette de Mexico*, tom i. and v. 5. In the province of Bahia in Brasil. It is seven feet long, four feet wide, and two feet thick, and its weight about 14,000 lbs.—Mornay and Wollaston, *Philosophical Transactions*, 1816. 6. In the jurisdiction of San Jago del Estero.—*Rubin de Celis*, in the *Philosophical Transactions* 1788, vol. lxxviii. p. 37. 7. At Elbogen in Bohemia.—*Gilbert's Annal*. xlii. and xliv. 8. Near Lenarto in Hungary. *Gilbert's Annal*. xlix.

Native iron is not, however, necessarily meteoric; it has been discovered in mines in Saxony and France. A specimen from a mine near Kamsdorf, in Saxony, yielded, according to Klaphroth,

Iron	92·5
Lead	6·0
Copper	1·5
<hr/>	
	100·0

Of the ores of iron, properly so called, the first species is the *common magnetic iron stone*; *gemeiner magnetischer Eisenstein* of Werner. Color dark iron, or bluish-gray, inclining to steel gray, sometimes to the cochineal red in its fresh fracture, but its surface is generally brownish-black. Found massive, or disseminated, foliaceous, globular, or crystallised in four sided prisms, or double quadrangular pyramids joined base to base, and thus forming octohedrons; or in short hexahedral prisms, terminated with three quadrangular faces, &c., or in cubes. External lustre 2, of the crystallised; internal 3. Of the massive 1 or 1·5 metallic. Transparency 0. Fracture generally fine grained, uneven, or intermediate between that and the fine grained conchoidal. Streak black. Harder than apatite. Brittle. Specific gravity 4·8 to 5·2. Highly magnetic, with polarity. Before the blowpipe it becomes brown, and does not melt with borax; it gives a glass of a dark green color. Its constituents, according to Berzelius, are peroxide of iron 69, protoxide of iron 31. It occurs in beds of great magnitude, in primitive rocks at Unst; at St. Just in Cornwall; at Arendal in Norway, &c. It affords excellent bar iron.

Most of the Swedish ores are of this family; all are magnetic, and rather gain than lose weight by calcination. The magnet itself belongs to this family, and differs from other ores

only in being actively, as they are passively magnetic; it commonly betrays some tendency to the octohedral form. Mr. Rinman observes, that all the magnetic ores give red short iron, but that this is easily remedied by a second fusion.

Another variety or family of this species is the *magnetic iron sand*; *magnetischer eisen-sand* of Werner. Color deep iron black, which passes sometimes to ash-gray. Occurs in angular or roundish grains; and also in small octohedral crystals. Surface rough and feebly glimmering. Internal lustre shining, metallic. Fracture perfect, conchoidal. Fragments indeterminate, sharp-edged. Streak grayish-black. Semi-hard, brittle, easily frangible, and heavy. Specific gravity 4·6 to 4·8. Magnetical with polarity. Its constituents, according to Klaproth, are oxide of iron 85·5, oxide of titanium 14, oxide of manganese 0·5. It occurs imbedded in basalt, &c., in the river Elbe near Schandau in Saxony, imbedded in floetz trappe in Bohemia, and is also found in St. Domingo, Guadaloupe, in Norway, France, the Tyrol, Greenland, and the isle of Skye.

Second species, *specular iron ore*: *Gemeiner eisen glanz* of Werner; *fer oligeste* of the French. Color light or dark steel gray, or of tarnished azure blue, or gold yellow. Massive, disseminated or crystallised in cubes, either perfect or with their edges truncated or in octohedrons or double three-sided pyramids or tabular in flat hexahedral masses, regularly accumulated or lenticular in thin sharp plates. Primitive form a rhomboid in which the angles are 87° 9, and 92° 51'. Lustre, 3, 4. Splendid metallic. Transparency, 0. Fracture, fine or coarse grained, uneven, or minute conchoidal, presenting granular, columnar, plain or curved lamellar distinct concretions, sometimes inclining to the broad striated, very rarely slaty. Hardness from 9 to 10, between felspar and quartz. Specific gravity from 4·939 to 5·218, Brisson, or 4·158, Gellert. Its streak is grayish-red, or cherry-red, seldom black. Nitrous acid does not affect this species. But marine acid, especially when heated, attacks it, and acquires a light or deep orange-yellow color, according to the proportion it has dissolved. The highest specific gravity of this ore is very remarkable, and shows its particles must be very intimately united. The blow-pipe has but little effect on it; to borax it gives an obscure yellow tinge. Its constituents are, according to Hisinger, reddish-brown oxide of iron 94·38, phosphate of lime 2·75, magnesia 0·16, mineral oil 1·25. It occurs in beds in primitive mountains. It is found at Cumberhead in Lanarkshire; at Norberg in Westmannland, in Norway, &c. It affords an excellent malleable iron.

Third species.—*Brown Hematites*, *Brauner Glasskopf* of Werner.—Color, externally, brown or black, or bluish-black, occasionally, of a middle color between the yellow and nut-brown; sometimes iridescently variegated yellow and red. Internally nut-brown. Found massive, or in nodules of various sizes, or globular, tabular, cellular, stalactitic, or crystallised in hollow secondary sharp-angled hexahedral pyramids, or in pentagonal pyramids. External lustre 2,

3. Internal 2, 1. Common, but the variegated looks metallic. Transparency 0. Fracture, delicately fibrous, straight, curved or diverging, often presenting fine or coarse grained curved lamellar distinct concretions turned outwards. Fragments 3. Hardness from 8 to 10. Brittle. Specific gravity 3·789. Gellert. Streak yellowish or reddish-brown. Its powder is also red. Not magnetic till calcined. Before the blow-pipe it blackens and give to borax a dirty yellow tint with some effervescence. According to the analysis of M. D'Aubuisson its constituent parts are,

	From Bergzabern.	From Viedessos.
Peroxide of iron .	79	82
Peroxide of manganese .	2	2
Silex . .	3	1
Volatile matter . .	15	14
Loss . .	1	1
	100	100

The specific gravity of the former was 3·8, and of the latter 3·9. The specimen from Viedessos afforded a slight trace of alumine. This species, which is so very abundantly distributed in the German states, is of rare occurrence either in Sweden, Russia, Norway, or England. In the former it furnishes materials for very extensive iron-works; and the wrought-iron produced from it is very valuable.

Fourth species.—*Compact brown iron-stone*. *Dichter braun eisen stein* of Werner. *Mine de fer hepatique* of the French. Light or deep nut-brown, or brownish-black. Found massive, disseminated, stalactitic, cellular, nodular, or crystallised in rhombs, as secondary crystals, &c. External lustre casual. Internal lustre 0, 1. Metallic, or nearly so. Transparency 0. Fracture sometimes passing into the earthy or fine grained uneven, or gross conchoidal, when mixed with brown haematises. Fragments 2, rarely presents columnar or lamellar distinct concretions. Hardness from 6 to 8, rarely 9. Brittle. Specific gravity from 3·4771 to 3·5027. Brisson. Streak reddish, or yellowish, dark brown. When heated this ore becomes magnetic and blackens, to borax it gives an olive-green color. The proportion of its ingredients, as stated by M. D'Aubuisson, in the seventy-fifth volume of the Annales de Chimie, is as follows:—

	From Bergzabern.	From Viedessos.	From Voightsberg.
Peroxide of iron .	84	81	69
Peroxide of manganese .	1		3
Silex . .	2	4	10
Alumine . .			3
Volatile matter . .	11	12	13
Loss . .	2	3	2
	100	110	100

The specific gravity of the specimen from Vicdessos was 3·4.

Fifth species.—*Brown scaly iron ore*. *Braun eisen ram* of Werner.—Its color is intermediate between the tombac or nut-brown, and steel-gray. Generally found incumbent on other fossils, sometimes detached, imperfectly rounded or branchy. Lustre from 1 to 2. Metallic. Fracture seems fine-foliated or scaly, passing into the even. Fragments 1, 2. Hardness from 3 to 5. Brittle; light, so as often to float on water. Stains the fingers, or marks strongly, feels somewhat unctuous. From its lightness some have called it eisen bluthe. Before the blow-pipe it blackens, and gives to borax a greenish-yellow color.

Sixth species.—*Brown iron ochre*. *Ockriger braun eisen stein* of Werner.—Its colors extend from the nut-brown to the ochre-yellow, and orange. Found massive and disseminated. Transparency 0. Lustre 0. Fracture earthy. Hardness from 3 to 4. Strongly stains the fingers. When slightly heated it reddens. Before the blow-pipe it blackens, and gives borax a yellowish or olive-green color.

Seventh species.—*Red haematites rother glass kopf* of Werner.—Color between brownish-red and dark steel-gray. Massive, imitative, and in supposititious double six-sided pyramids from calcareous spar. Glistening, semi-metallic. Opaque. Streak blood-red. Brittle. Specific gravity 4·74. Its constituents, according to D'Aubuisson, are 90 oxide of iron, silica 2, lime 1, water 3. It affords excellent malleable and cast iron. Its powder is used for polishing tin, silver, and gold vessels; and for coloring iron brown. Baron Born assures us, it is often mixed with calcareous earth, and then effervesces with acids. The baron and Bergman also mention a yellow haematis, which differs from this only in presenting a yellow powder when pulverised.

Eighth species.—*Compact red iron stone*, *Dichter roth eisen stein* of Werner.—Color between dark steel-gray and blood-red. Massive, and in supposititious crystals; which are an acute double six-sided pyramid from calcareous spar; and a cube from fluor spar and iron pyrites. Lustre metallic. Fracture even. Streak pale blood red. Easily frangible. Specific gravity 4·232. When pure it does not affect the magnet. Its constituents are, oxide of iron 70·5, oxygen 29·5. Of this sort is the Lancashire ore, sometimes used at Carron, in Scotland. Externally it is invested with a rosy red ochre; internally its color is a purplish-gray.

Ninth species.—*Red ochre, ockriger roth eisen stein* of Werner.—Its color blood-red, more or less dark. It is found sometimes loose, sometimes indurated. Lustre 0. Fracture earthy; sometimes slaty. Hardness from 3 to 4. Brittle. Rarely 5. Stains the fingers. Heated, it blackens. It does not effervesce with acids, unless mixed with mild calx, as it often is in England. Specific gravity 2·947. It occurs in veins, with the preceding ore. It melts more easily than any of the other ores of this metal, and affords excellent malleable iron.

Tenth species.—*Red scaly iron ore*, *Rother eisen ram* of Werner.—Color dark steel-gray to

brownish-red. Friable, and consists of semi-metallic shining scaly parts, which are sometimes translucent and soil strongly. Its constituents are, iron 66, oxygen 28·5, silica 4·25, alumina 1·25. But Buchholz found it be a pure red oxide of iron, mixed with a little quartz sand. Harry asserts that it consists of

Iron	66
Oxygen	28·5
Silex	4·25
Alumine	1·25
100-	

It occurs generally in veins in primitive and transition mountains, accompanied with other ores of iron, copper, pyrites, quartz, barytic spar, &c. Although a rare variety of this metal, it is found rather plentifully in the neighbourhood of Ulverston, Lancashire, and is also met with in Cornwall. It occurs too in Norway, the Hartz, Saxony, Silesia, Salzburg, Hungary, and South America.

Eleventh species.—*Upland argillaceous iron ore*. *Gemeiner thonartiger eisen stein* of Werner.—Color, steel, reddish or yellowish-gray, or yellowish and dark nut brown, or dark brick-red, or dark ochre yellow. The gray becomes blacker by exposure to the air.

On an ore of this kind, the celebrated iron foundries of Carron in Scotland are principally founded. Its color is partly light, partly dark bluish gray: some specimens are also of a light, or whitish purple externally, but internally dark ochre yellow. It is found in masses, apparently slaty, and in nodules in an adjacent coal mine, of which it sometimes forms the roof. Lustre 0·1. Transparency 0. Cross fracture, compact, uneven, or imperfectly conchoidal, longitudinal, even. Fragments 2. Hardness from 5 to 6. Specific gravity of light gray, found by Dr. Rotheram, before calcination, 3·434; after calcination, 3·652. Of the dark gray, before calcination, 3·205; after calcination 4·190. Of the yellowish, before calcination, 3·357. Streak of the light gray, dark red. Of the yellowish, yellow. It gives out no smell when breathed on. It affords about thirty per cent. of cast iron.

Some specimens of the mineral yield as much as forty per cent. of oxide of iron, whilst others do not afford more than twenty per cent., and many even less than that. The following are the results of some analyses by Richter and Lampadius:—

Oxide of iron . . .	20·1	33·9	39·0	42·5
Oxide of manganese . . .	1·0	1·1		3·0
Silex	19·9	23·9	5·0	13·8
Alumine	30·2	13·0	40·0	13·6
Magnesia			6·0	
Carbonic acid . . .	28·8	28·1		27·1
Water			9·0	
Sulphur			1·0	
	100	100	100	100

This ore is found very plentifully in different parts of England and Scotland; and is also met with in Westphalia, Bohemia, Silesia, the Upper Palatinate, Poland, Russia, Siberia, Italy, and Norway.

Twelfth species.—*Scalpiform or columnar iron ore. Stanglich thonartiger eisen stein* of Werner. Color dark brownish-red, or intermediate between that and cherry red, formed of slender columns adhering to each other, but easily separable, commonly incurvated with a rough surface. Lustre 0. Transparency 0. Fracture even, or earthy, inclining to the small conchoidal. Hardness from 4 to 5. Brittle. Streak dark red. Slightly staining the fingers, and adhering strongly to the tongue. Sounding hollow when struck. Before the blow-pipe it blackens, with borax it effervesces, giving it an olive green and blackish tinge. This ore frequently affords thirty per cent. of metal.

Thirteenth species.—*Nodular or kidney-form ore, eisen niere* of Werner. *Elites or eagle stone.* Color externally yellowish-brown; internally lighter; it has often a kernel whose color is mostly ore yellow. Its form is generally that of a rounded nob or kidney, but occasionally quadrangular. The masses are often the size of a man's head, with a rough surface, and are generally found imbedded in clay or shale. Fracture towards the surface even; in the interior fine earthy. Fragments sharp-edged. Internal lustre dull: external glimmering, semi-metallic. External layers soft; those of the centre very soft; brittle; easily frangible; adhering to the tongue, meagre to the touch, and moderately heavy. Specific gravity 2·574. It does not melt before the blow-pipe, when heated alone; but fuses with borax, and communicates to it a dirty yellow color.

Occurs in the newest floetz rocks, imbedded in the argillaceous strata that are incumbent on coal. It is found abundantly in Derbyshire, and some of the neighbouring counties; in Scotland, Norway, Denmark, Bohemia, Silesia, Transylvania, France, and Siberia.

Fourteenth species—*Pisiform or granular iron ore. Bohnerz* of Werner. Its color is generally brown, or dark yellowish, and blackish brown. Occurs in rounded masses or grains, from the size of a pea to that of a nut, with a rough surface. External lustre casual. Internal 1, 1·5, 0. Transparency 0. Fracture even, earthy, or flat conchoidal. Fragments 2. Presents concentric lamellar distinct concretions. Hardness from 5 to 6. Brittle. Streak yellowish brown. Of this sort is the Oolitic ore, found at Creusot, near Mount Cenis. It is said to contain fifty per cent. of calx, twenty argill, and thirty of iron. Vauquelin's analysis gives iron 30, oxygen 18, alumine 31, silex 15, water 6. This ore is principally found in France and Switzerland.

Fifteenth species.—*Meadow or conchoidal bog ore. Wiesenerz* of Werner. Color blackish-brown. Massive, and tube rose. Glistening. Fracture small conchoidal. Streak yellowish-gray. Soft. Specific gravity 2·6. Its constituents are, according to Klaproth, oxide of iron 66, oxide of manganese 1·5, phosphoric acid 8, water 23. By Vauquelin's experiments it seems to

contain also chrome, magnesia, silica, alumina, and lime; zinc and lead are likewise occasionally present. It is found in the Highlands of Scotland, in Saxony, &c. The latter is most easily reduced, and affords the best iron.

According to D'Aubuisson's analysis this ore contains,

Peroxide of iron	61·0
Peroxide of manganese	7·0
Silex	6·0
Alumine	2·0
Volatile matter	19·0
Phosphoric acid	2·5
Lime, sulphur, and loss	2·5

100

Sixteenth species.—*Swamp or bog ore. Sumpferz* of Werner. Color dark nut brown, sometimes nearly black. Found in amorphous lumps or grains, mostly corroded and mixed with sand. Lustre 0 where the color is light 1 to 1·5. Fracture compact, earthy, sometimes though rarely conchoidal. Hardness from 3 to 4. Brittle. Specific gravity 2·94. Streak yellowish-brown. Often containing thirty-six per cent. of metal.

Seventeenth species.—*Iron mica or plumbaginous ore. Eisen glimmer* of Werner. Its color is bright iron gray, sometimes bluish-gray, nearly black. Found in amorphous masses, or disseminated, or crystallised, generally in thin, minute, hexahedral lamelle, and in botryoidal groups. Lustre 2·3. Metallic. Transparency 0, yet the single scales are somewhat transparent, and transmit a reddish light. Fracture foliated, generally curved, sometimes plain, presenting thick or thin, coarse or fine, broad or narrow, distinct lamellar concretions, rarely granular; sometimes none. Hardness from 5 to 7. Brittle. Specific gravity from 4·50 to 5·07. Streak bluish gray; some say cherry red. Slightly magnetic. Feels somewhat greasy: does not stain the fingers. Before the blow-pipe it is infusible, and communicates to borax a brown and somewhat olive-green tinge.

Eighteenth species.—*Blue martial earth. Blau eisenerde* of Werner. *Le fer tâtre bleu* of the French. Its color, after having been exposed to the air for some time, is a deep blue, seldom, however, smalt blue. In its native situation it is often white, sometimes brown and green, and is found in large massy lumps. Lustre 0, moderately compact, somewhat dusty. Fracture earthy. It stains the fingers, and feels dry; its weight is inconsiderable. Readily diffusible in water. Generally found in bogs, sometimes in secondary stratified mountains, and always some feet under the surface, as in Saxony; sometimes in the vicinity of rivers, as that found near Neuilly, by Morand.

Soluble both in acids and alkalies, but precipitable from either, by the other. In water it preserves its color, but blackens in oils. Heated on a red hot coal it inflames, and leaves a red powder, which is in some degree magnetic. Before the blow-pipe it instantly becomes reddish brown, and melts into a black bead. To borax it gives a dark yellow tinge.

It occurs in nests in clay beds, amongst bog iron ore, and incrusting turf and peat. It is found, under the latter circumstances, in the Shetland Islands; it also appears in Iceland, Saxony, Silesia, Suibia, Bavaria, Poland, Siberia, Russia, and Sweden.

Nineteenth species.—*Green martial earth. Grüne eisenerde* of Werner. Color light or dark canary green, and thence passing into the olive green or yellow. Commonly found investing, or incumbent. Friable: seldom indurated. Lustre 0. Fracture nearly even. Hardness from 3 to 6. Strongly marks the fingers. Not remarkable heavy. Streak gray. Difficultly soluble in acids. When strongly heated it loses its weight, and blackens. With borax it easily melts into a yellowish brown opaque glass, with black spots.

No exact analysis has been made of this species; but it is supposed by Werner to have iron and phosphoric acid for its principal ingredients.

It is a rare mineral, and has hitherto been only found at Braunsdorf and Schneiberg, in Saxony, where it occurs in veins: in the former place accompanied with quartz and pyrites, and in the latter with quartz and native bismuth.

Twentieth species.—*Common pyrites. Gemeiner sulphur kiess* of Werner: color bronze yellow inclining sometimes to gold-yellow: occurs massive and disseminated in minute cubes, octohedrons, dodecahedrons, and sometimes though very rarely icosahedrons are met with. External lustre 4·3. Internal 2. Metallic. Transparency 0. Fracture uneven: fine or coarse grained. Hardness 10, brittle. Specific gravity from 2·9 to 4·6. It is not magnetic, and if rubbed yields a sulphureous smell. It deerepitates, and, when heated red hot, loses its fine yellow color and becomes of an iron gray and partly of a bright red. At 102, of Wedgewood's pyrometer, it melts in a covered crucible into a bluish-gray slagg, somewhat porous internally. Before the blow-pipe it emits a strong sulphureous smell, burns at first with a blue flame, and leaves a brownish head, which tinges borax of a smutty green: otherwise, if further heated, it reddens. Its occurrence is almost universal, both with respect to geographic arrangements, and the numeral formations in which it is presented.

Twenty-first species.—*Striated pyrites: strahlkiess* of Werner. Color when fresh broken similar to those of the former variety, but more liable to be tarnished, passing into variegations resembling those of a peacock's tail. Found reniform, stalactitic, or crystallised in small cubes, or pyramids united in a common basis, generally grouped together, and impledicated in each other. External lustre, when undecayed, 3·4. Metallic. Internal 2. Transparency 0. Fracture sometimes coarse and broad, sometimes fine and striated. Fragments present curved lamellar distinct concretions turned inwards. Hardness 10. Brittle. Specific gravity from 3·44 to 4·1. Brisson. Before the blow-pipe it exhibits the same appearances as common pyrites, and is constituted of about fifty-four parts of sulphur, and forty-six of iron.

It is considerably more rare than the preceding and is found in veins, particularly those which contain lead or silver.

The chief places of its occurrence are, Cornwall and Derbyshire, in England; Arendal, in Norway; and in various districts of Suabia, Saxony, and Bohemia.

Twenty-second species.—*Capillary pyrites, haarkiess* of Werner. Its color generally steel gray, or intermediate between that and the pale yellow. Found in hexangular, or octangular, acicula: crystals, either parallel or diverging from a common centre, or capillary and woolly, or interwoven. Lustre 3. Metallic. Transparency 0. This variety is the least common of the pyrites. Hydro-oxide of iron.

Twenty-third species.—*Magnetic pyrites: magnetischer eisen kiess* of Werner. Color intermediate between the tombac brown, and brass yellow. Often iridescently tarnished. Found disseminated and massive. Lustre 2. Metallic. Transparency 0. Fracture compact, inclining to the small conchoidal and uneven. Fragments 2. Hardness 8·9. Brittle. Specific gravity exceeds 3. Slightly magnetic: when treated with the blow-pipe, it does not give out so strong a smell of sulphur, but melts into a grayish-black bead, which is also magnetic; with borax it effervesces, and gives it a black tinge. It is composed of 63·5 sulphur and 36·5 iron.

Twenty-third species.—*Hepatic pyrites. Leberpyrites* of Werner. *Wasser kiess* of others. Color steel gray or intermediate between steel gray and pale yellow, sometimes variously tarnished by exposure to the air. It occurs massive or disseminated, or stalactitic, reniform, cellular, orbicular, tabular, &c. Its surface often striated. External lustre 2. Internal 1. Metallic. Transparency 0. Fracture even, uneven, or inclining to the conchoidal. Hardness from 9 to 10. Specific gravity from 3477 to 3502. Lustre of its streak 2·3. Exposed to air and moistened, it does not effloresce.

Twenty-fourth species.—*Calcareous or sparry iron ore. Spath eisir stein* of Werner.—Color nearly white, passing into yellowish-brown, and blackish-brown. It tarnishes on exposure either to the air or heat, and then becomes brown or black, and sometimes iridescent. It is found massive, disseminated, and crystallised. Its crystals are either rhombs, octahedrons, or dodecahedrons. They are seldom large; commonly middle-sized and small. Their surface is generally smooth. Internally it varies from splendid to glimmering. Lustre pearly. Fracture foliated. Cleavage triple. Fragments rhomboidal. The light-colored varieties are translucent, especially on the edges; but the dark-colored, opaque. The former give a grayish-white streak; the latter a yellowish-brown. It is semi-hard, inclining sometimes to soft. Rather brittle. Easily frangible, and moderately heavy. Specific gravity 3·300 to 3·810. Not magnetic. Carbonate of iron.

It blackens before the blowpipe, and enters into ebullition with borax, to which it communicates a dirty yellow color. It always effervesces more or less with acids. According to Bergman, it is composed of

Oxide of iron	38
Oxide of manganese	24
Lime	19
Carbonic acid	10
Water	9
	100

but it is liable to great variation in the proportion of its ingredients. In an examination by Descotils, the following result was afforded:—

Quartz	9·58
Oxide of iron	48·45
Oxide of manganese	1·80
Lime	·52
Magnesia	1·98
Carbonic acid, water, and loss	44·67

This is generally looked upon as the best of the iron ores, as it affords the finest iron for the nicer purposes, the best steel in greatest plenty, and with the greatest ease and least expense. Hence it is generally called steel ore.

Twenty-fifth species.—*Cube ore, wurtzlerz* of Werner.—Color olive green, of different degrees of intensity. It is found massive, disseminated, and crystallised in small cubes, which are sometimes truncated at the angles. Planes of the crystals smooth and splendid. Internally it is glistening, and its lustre between pearly and adamantine. Fracture imperfect foliated. It is translucent, soft, brittle, and gives a streak of a straw-yellow color. Specific gravity 3·00. It appears sometimes in the form of a reddish-yellow powder, which is thinly distributed over the surface. Before the blow-pipe it swells up, and emits an arsenical odor; melting afterwards into a gray metallic globule, slightly tinged with yellow. From the analysis of Chenevix, it appears to be composed of

Arsenic acid	31·
Oxide of iron	45·5
Oxide of copper	·9·
Silex	4·
Water of crystallisation	10·5
	100

It occurs in veins, accompanied with some ores of copper, quartz, mica, and feldspar. The only places that have hitherto afforded it, are the mines of Carrarach and Muttrel, in Cornwall.

These are all the principal species of iron ore, some of which are by Jamieson and Kirwan divided into families too numerous to distinguish in a treatise of this description. Some that are retained as important by Kirwan, are, however, omitted, the improved analysis of the present day having shown that their proportion of iron is too small to rank them as iron ores. *Smyris* Emery, for example, contains but from four to five per cent. of this metal.

It is now our task to notice the various chemical combinations of iron; in performing which we shall pretty freely abstract Dr. Ure's remarks on that important mineral.

This metal, observes Dr. Ure, is easily oxidised. A piece of iron wire, immersed in a jar of oxygen gas, being ignited at one end, will be entirely consumed by the successive combus-

tion of its parts. It requires, however, a very intense heat to melt it; on which account it can only be brought into the shape of tools and utensils by hammering. This high degree of infusibility would deprive it of one of the most valuable qualities of metals, namely, the uniting of smaller masses into one, if it did not possess a property found in no other metal except platinum, namely, that of welding. In a white heat, iron appears as if covered with a kind of varnish; and in this state if two pieces be applied together, they will adhere, and may be perfectly united by hammering.

When iron is exposed to the action of moist air or water, it acquires weight by gradual oxidation, and hydrogen gas escapes: if steam be made to pass through a red-hot gun barrel, or through an ignited copper or glass tube, containing iron wire, the iron becomes converted into an oxide, while hydrogen gas passes out at the other end of the barrel. The yellow rust, formed when iron is long exposed to damp air, contains a portion of carbonic acid. The concentrated sulphuric acid scarcely acts on iron, unless it is boiling. If the acid be diluted with two or three parts of water, it dissolves iron readily, without the assistance of heat. During this solution, hydrogen escapes in large quantities. The green sulphate of iron is much more soluble in hot than cold water; and therefore crystallises by cooling as well as by evaporation. The crystals are efflorescent, and fall into white powder by exposure to a dry air, the iron becoming more oxidised than before. A solution of sulphate of iron, exposed to the air, imbibes oxygen; and a portion of the iron becoming peroxidised, falls to the bottom. Sulphate of iron is not made in the direct way, because it can be obtained at less charge from the decomposition of martial pyrites. It exists in two states, one containing oxide of iron, with 0·22 of oxygen, which is of a pale green, not altered by gallic acid, and giving a white precipitate with prussiate of potassa. The other, in which the iron is combined with 0·30 of oxygen, is red, not crystallisable, and gives a black precipitate with gallic acid, and a blue with prussiate of potassa. In the common sulphate, these two are often mixed in various proportions.

Sulphate of iron is decomposed by alkalies and by lime. Caustic fixed alkali precipitates the iron in deep green flocks, which are dissolved by the addition of more alkali, and form a red tincture. Vegetable astringent matters, such as nutgralls, logwood, &c., which contain tannin and gallic acid, precipitate a fine black fecula from sulphate of iron, which remains suspended for a considerable time in the fluid, by the addition of gum-arabic. This fluid is well known by the name of ink. See Ink. The beautiful pigment well known in the arts by the name of prussian blue, is likewise a precipitate afforded by sulphate of iron.

Concentrated nitric acid acts very strongly upon iron filings, much nitrous gas being disengaged at the same time. The solution is of a reddish-brown, and deposits the oxide of iron after a certain time; more especially if the vessel be left exposed to the air. A diluted nitric

acid affords a more permanent solution of iron, of a greenish color, or sometimes of a yellow color. Neither of the solutions affords crystals, but both deposit the oxide of iron by boiling, at the same time that the fluid assumes a gelatinous appearance.

Diluted muriatic acid rapidly dissolves iron at the same time that a large quantity of hydrogen is disengaged, and the mixture becomes hot. If iron filings be triturated with muriate of ammonia, moistening the mixture; then drying, powdering, and again triturating; and lastly subliming with a heat quickly raised; yellow or orange-colored flowers will rise, consisting of a mixture of muriate of ammonia, with more or less of muriate of iron. These, which were called flowers of steel, and still more improperly *ens veneris*, were once much esteemed; but are now little used, as they are nauseous in solution, and cannot very conveniently be given in any other form. Carbonic acid, dissolved in water, combines with a considerable quantity of iron, in proportion to its mass. Phosphoric acid unites with iron, but very slowly. The union is best effected by adding an alkaline phosphate to a solution of one of the salts of iron, when it will fall down in a white precipitate. This acid is found combined with iron in the bog ores, and, being at first taken for a peculiar metal, was called siderite by Bergmann. Liquid fluoric acid attacks iron with violence: the solution is not crystallisable, but thickens to a jelly, which may be rendered solid by continuing the heat. The acid may be expelled by heating it strongly, leaving a fine red oxide. Borate of iron may be obtained by precipitating a solution of the sulphate with neutral borate of soda. Arsenic acid likewise unites with iron. This arseniate is found native. Chromate of iron has been found in the department of Var in France, and elsewhere. Sulphur combines very readily with iron. A mixture of iron filings and flowers of sulphur being moistened, or made into a paste with water, becomes hot, swells, adheres together, breaks, and emits watery vapors of an hepatic smell. If the mixture be considerable in quantity, as for example 100 lbs., it takes fire in twenty or thirty hours, as soon as the aqueous vapors cease. By fusion with iron, sulphur produces a compound of the same nature as the pyrites, and exhibiting the same radiated structure when broken. If a bar of iron be heated to whiteness, and then touched with a roll of sulphur, the two substances combine, and drop down together in a fluid state. Mr. Hatchett found, that the magnetical pyrites contain the same proportion as the artificial sulphuret. Phosphorus may be combined with iron by adding it, cut into small pieces, to fine iron wire heated moderately red in a crucible; or by fusing six parts of iron clippings, with six of glacial phosphoric acid, and one of charcoal powder. This phosphuret is magnetic; and Mr. Hatchett remarks, that iron, which in its soft or pure state cannot retain magnetism, is enabled to do so when hardened by carbon, sulphur, or phosphorus, unless the dose be so great as to destroy the magnetic property, as in most of the natural pyrites and plumbago. Iron unites with gold,

silver, and platina. When heated to a white heat, and plunged in mercury, it becomes covered with a coating of that metal. Mr. A. Aikin unites an amalgam of zinc and mercury with iron filings, and then adds muriate of iron, when a decomposition takes place, the muriatic acid combining with the zinc, and the amalgam of iron and mercury assuming the metallic lustre by kneading, assisted with heat. Iron and tin very readily unite together. Iron does not unite easily with bismuth, at least in the direct way. This alloy is brittle and attractive by the magnet, even with three-fourths of bismuth. As nickel cannot be purified from iron without the greatest difficulty, it may be presumed that these substances readily unite. Arsenic forms a brittle substance in its combination with iron. Cobalt forms a hard mixture with iron, which is not easily broken. Manganese is almost always united with iron in the native state. Tungsten forms a brittle, whitish-brown, hard alloy, of a compact texture, when fused with white crude iron. The habitudes of iron with molybdena are not known.

Dr. Wollaston first showed, that the forms in which native iron is disposed to break are those of the regular octohedron and tetrahedron, or rhomboid, consisting of these forms combined. In a specimen possessed by this philosopher the crystalline surfaces appear to have been the result of a process of oxidation which has penetrated the mass to a considerable depth in the direction of its laminae; but, in the specimen which is in the possession of the Geological Society, the brilliant surfaces that have been occasioned by forcible separation from the original mass exhibit also the same configurations as are usual in the fracture of octohedral crystals, and are found in many simple metals. This spontaneous decomposition of the metal in the direction of its crystalline laminae is a new and valuable fact. From Mr. Daniell's ingenious experiments on the mechanical structure of iron, developed by solution, we learn, that a mass of bar-iron which had undergone all the operations of puddling and rolling, after being left in liquid muriatic acid till saturation, presented the appearance of a bundle of fæces, whose fibres run parallel through its whole length. At its two ends, the points were perfectly detached from each other, and the rods were altogether so distinct, as to appear to the eye to be but loosely compacted.

Compounds of iron.

1. Oxides; of which there are two, or perhaps three. 1st. The oxide obtained either by digesting an excess of iron filings in water, by the combustion of iron wire in oxygen, or by adding pure ammonia to solution of green copperas, and drying the precipitate out of contact of air, is of a black color, becoming white by its union with water, in the hydrate, attractive by the magnet, but more feebly than iron. By a mean of the experiments of several chemists, its composition seems to be,

Iron	100	77·82	3·5
Oxygen	28·5	22·18	1·0

Whence the prime equivalent of iron comes out, we perceive, 3·5. Sir H. Davy's number, re-

duced to the oxygen scale, is 6·86, one-half of which, 3·43, is very nearly the determination of Berzelius. But Mr. Porrett, in an ingenious paper published in the Annals of Philosophy for October 1819, conceives, that, to make the theoretical proportions relative to iron harmonize with the experimental results, we must consider 1·75, or the half of 3·5, as its true prime equivalent, or lowest term of combination. The protoxide will then consist of two primes of iron to one of oxygen. M. Thenard, in his *Traité*, vol. ii. p. 73, says, 'The above oxide, obtained by decomposing protosulphate of iron by potash or soda, and washing the precipitate in close vessels with water deprived of its air, consists, according to M. Gay Lussac, of 100 parts of iron, and 25 of oxygen. This determination would make the atom of iron 4·0; and is probably incorrect. This proportion is proved,' he adds, 'by dissolving a certain quantity of iron in dilute sulphuric acid, and collecting the evolved hydrogen. Now by this method extreme precision should be ensured.' 2d. Deutoxide of M. Gay Lussac. He forms it by exposing a coil of fine iron wire, placed in an ignited porcelain tube, to a current of steam, as long as any hydrogen comes over. There is no danger, he says, of generating peroxide in this experiment, because iron once in the state of deutoxide has no such affinity for oxygen as to enable it to decompose water. It may also, he states, be procured by calcining strongly a mixture of one part of iron and three parts of the red oxide in a stone-ware crucible, to the neck of which a tube is adapted to cut off the contact of air. But this process is less certain than the first, because a portion of peroxide may escape the reaction of the iron. 'But we may dispense with the trouble of making it,' adds M. Thenard, 'because it is found abundantly in nature.' He refers to this oxide, the crystallised specular iron ore of Elba, Corsica, Dalecarlia, and Sweden. He also classes under this oxide all the magnetic iron ores; and says, that the above-described protoxide does not exist in nature. From the synthesis of this oxide by steam, M. Gay Lussac has determined its composition to be,

Iron . . .	100	72·72
Oxygen . . .	37·5	27·28

which Mr. Porrett reconciles to theory, by representing it as consisting of

3 primes iron . . .	5·25	72·5	100
2 primes oxygen . . .	2·00	27·5	38

3d. The red oxide. It may be obtained by igniting the nitrate, or carbonate; by calcining iron in open vessels; or simply by treating the metal with strong nitric acid, then washing and drying the residuum. Coleochar of vitriol, or thorough calcined copperas, may be considered as peroxide of iron. It exists abundantly native in the red iron ores. It seems to be a compound of, according to Mr. Porrett,

Iron . . .	100	70 = 4 primes.
Oxygen . . .	43	30 = 3 primes.

2. Chlorides of iron; of which there are two, first examined in detail by Dr. John Davy. The protochloride may be procured by heating to

redness, in a glass tube with a very small orifice, the residue which is obtained by evaporating to dryness the green muriate of iron. It is a fixed substance, requiring a red heat for its fusion. It has a grayish variegated color, a metallic splendor, and a lamellar texture. It absorbs chlorine when heated in this gas, and becomes entirely converted into the volatile deutochloride. It consists, according to Dr. Davy, of

Iron . . .	46·57
Chlorine . . .	53·43

According to Mr. Porrett.

2 primes iron . . .	3·5	43·75	100·0
1 prime chlorine . . .	4·5	56·25	128·7

The deutochloride may be formed by the combustion of iron wire in chlorine gas, or by gently heating the green muriate in a glass tube. It is the volatile compound described by Sir H. Davy in his celebrated Bakerian lecture on oxymuriatic acid. It condenses after sublimation, in the form of small brilliant iridescent plates.

It consists, according to Dr. Davy, of

Iron . . .	.	.	.	.	. 35·1
Chlorine . . .	.	.	.	.	. 64·9

By Mr. Porrett

4 primes iron . . .	7·0	34·14	100·00
3 primes chlorine . . .	13·5	65·86	192·85

3. For the iodide of iron, see *IODINE*.

4. Sulphurets of iron; of which, according to Mr. Porrett, there are four, though only two are usually described, his protosulphuret and persulphuret.

The persulphuret of iron exists in nature. It has the metallic appearance of bronze, but its powder is blackish-gray. It is in fact the magnetic pyrites of mineralogy, which see among the *ORES OF IRON*. By the analysis of Mr. Hatchett, and Professor Proust, it seems to consist of iron 63
sulphur 37

Mr. Porrett represents it as composed of

2 primes iron . . .	= 3·5	63·75	100
1 prime sulphur . . .	2·0	36·25	57

His deutosulphate and tritosulphate are as follows:—

Deutos. 3 primes iron . . .	5·25	57	100
2 primes sulphur . . .	4·00	43	76

Tritos. 4 primes iron . . .	7·0	54	100
3 primes sulphur . . .	6·0	46	86

He conceives, that in Proust's experiments, as related in the first volume of Nicholson's 8vo. Journal, descriptions of compounds corresponding to those two sulphurets are given.

The persulphuret is the cubic iron pyrites of the mineralogist. It consists, according to Mr. Porrett, of

1 prime iron . . .	1·75	46·5	100·0
1 prime sulphur . . .	2·00	53·5	114·2;

and the mean of Mr. Hatchett's celebrated experiments on pyrites, published in the Philosophical Transactions for 1804, gives of iron 100
sulphur 113

5. Carburets of iron. These compounds form steel, and probably cast-iron; though the latter contains also some other ingredients. The

latest practical researches on the constitution of these carburets, are those of Mr. Daniell, above quoted.

We annex Mr. Mushet's table of the proportions of carbon corresponding to different carburets of iron.

$\frac{1}{10}$	Soft cast-steel.
$\frac{1}{100}$	Common cast-steel
$\frac{9}{10}$	The same, but harder.
$\frac{5}{10}$	The same too hard for drawing.
$\frac{1}{25}$	White cast-iron.
$\frac{1}{10}$	Mottled cast-iron.
$\frac{1}{15}$	Black cast-iron.

Graphite or plumbago is also a carburet of iron, containing about ten per cent. of metal, which, calling the prime of iron 1·75, makes it a compound of twenty-one primes of carbon to one of metal.

Salts of iron. These salts have the following general characters :—

1. Most of them are soluble in water; those with the protoxide for a base are generally crystallisable; those with the peroxide are generally not; the former are insoluble, the latter soluble in alcohol. 2. Ferroprussiate of potash throws down a blue precipitate, or one becoming blue in the air. 3. Infusion of galls gives a dark purple precipitate, or one becoming so in the air. 4. Hydrosulphuret of potash or ammonia gives a black precipitate; but sulphureted hydrogen merely deprives the solutions of iron of their yellow-brown color. 5. Phosphate of soda gives a whitish precipitate. 6. Benzoate of ammonia, yellow. 7. Succinate of ammonia, flesh-colored with the peroxide. Protacetate of iron forms small prismatic crystals, of a green color, a sweetish styptic taste, and a specific gravity 1·368.

Peracetate of iron forms a reddish-brown uncryallisable solution much used by the calico printers, and prepared by keeping iron turnings, or pieces of old iron, for six months immersed in redistilled pyrolignous acid.

Protarseniate of iron exists native in crystals, and may be formed in a pulverulent state, by pouring arseniate of ammonia into sulphate of iron. It is insoluble, and consists, according to Chenevix, of 38 acid, 43 oxide, and 19 water, in 100 parts.

Perarseniate of iron may be formed by pouring arseniate of ammonia into peracetate of iron; or by boiling nitric acid on the protarseniate. It is insoluble.

Antimoniate of iron is white, becoming yellow, insoluble.

Borate, pale yellow, insoluble.

Benzoate, yellow, insoluble.

Protocarbonate, greenish, soluble.

Percarbonate, brown, insoluble.

Chromate, blackish, insoluble.

Protocitrate, brown crystals, soluble.

Protoferroprussiate, white, insoluble.

Perferroprussiate, white, insoluble.

This constitutes a very peculiar chemical pigment. When exposed to a heat of about 400° it takes fire in the open air; but in close vessels it is decomposed, apparently, into carbureted hydrogen, water, and hydrocyanate of

ammonia, which come over; while a mixture of charcoal and oxide of iron remains in the state of pulverulent pyrophorus, ready to become inflamed with contact of air. See PRUSSIC ACID.

Protogallate, colorless, soluble.

Pergallate, purple, insoluble.

Protomuriate, green crystals, very soluble.

Permuriate, brown, uncryallisable, very soluble. See the chlorides of iron previously described.

Protonitrate, pale green, soluble.

Pernitrate, brown, soluble.

Protocalate, green prisms, soluble.

Peroxalate, yellow, scarcely soluble.

Protoprophosphate, blue, insoluble.

Perphosphate, white, insoluble.

Protosuccinate, brown crystals, soluble.

Persuccinate, brownish-red, insoluble.

Protosulphate, green vitriol, or copperas. It is generally formed by exposing native pyrites to air and moisture, when the sulphur and iron both absorb oxygen, and form the salt. There is, however, an excess of sulphuric acid, which must be saturated by digesting the lixivium of the decomposed pyrites with a quantity of iron plates or turnings.

It forms beautiful green crystals, which are transparent rhomboidal prisms, whose faces are rhombs with angles of 79° 50' and 100° 10', inclined to each other at angles of 98° 37' and 81° 23'. Specific gravity 1·84. Its taste is harsh and styptic. It reddens vegetable blues. Two parts of cold and three-fourths of boiling water dissolve it. It does not dissolve in alcohol. Exposure to air converts the surface of the crystals into a red by separating the water of crystallisation, and a stronger heat drives off the sulphuric acid. Its constituents are 28·9 acid, 28·3 protoxide, and 45 water, according to Berzelius: consisting, according to Mr. Porrett's views, of 1 prime acid + 2 oxide + 7 water.

Persulphate. Of this salt there seems to be four or more varieties, having a ferrous base, which consists, by Mr. Porrett, of 4 primes iron + 3 oxygen = 10 in weight, from which their constitution may be learned.

The tartrate and pertartrate of iron may also be formed; or, by digesting cream of tartar with water on iron filings, a triple salt may be obtained, formerly called tartarised tincture of Mars.

Iron is one of the most valuable articles of the *materia medica*. The protoxide acts as a genial stimulant and tonic, in all cases of chronic debility not connected with organic congestion or inflammation. It is peculiarly efficacious in chlorosis. It appears to me, says Dr. Ure, that the peroxide and its combinations are almost uniformly irritating, causing heartburn, febrile heat, and quickness of pulse. Many chalybeate mineral waters contain an exceedingly minute quantity of protocarbonate of iron, and yet exercise an astonishing power in recruiting the exhausted frame. I believe their virtue to be derived simply from the metal being oxidized to a minimum, and diffused by the agency of a mild acid through a great body of water, in which state it is rapidly taken up by the lacteals, and speedily imparts a ruddy hue to the wan countenance. I find that these qualities may be imitated exactly, by dissolving three grains of

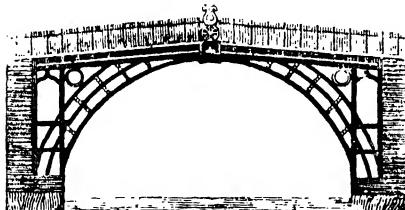
sulphate of iron, and sixty of bicarbonate of potash, in a quart of cool water, with agitation in a close vessel.

IRON BRIDGES, in modern engineering, are an invention exclusively British; and one of which the metropolis of this country contains two of the most complete specimens.

The first iron bridge erected was that of cast iron over the Severn, about two miles below *Colebrook Dale*, Shropshire, between the villages of Broseley and Madeley. It consists of five ribs forming the segment of a circle; and having its chord line 100 feet in length, and its versed sine forty-five feet; making its curve almost a semi-circle. The arch springs at about ten feet from low water mark, which makes the entire height from the water to the vertex of the soffit fifty-five feet. On the arch-shaped ribs the roadway is formed by pieces of cast iron and plates which carry the road. This bridge was cast at the Colbrooke Dale foundries by Mr. Abiah Darby, and erected in 1777. The curvature of the exterior concentric arches, which assist in supporting the roadway, though somewhat too great for the most favorable exertion of their resistance, leaves them still sufficiently strong for the purpose intended; and the partial failure, which accidentally occurred, bears testimony rather to the merits than to the faults of the bridge, as they would be estimated in any other situation: for the lateral thrust, which it is desirable to reduce as much as possible, was here actually too small, and the abutments were forced inwards, by the pressure of the loose external materials, forming the banks, against which the abutments pressed.

On the whole, if not so elegant a structure as some that have succeeded it, this is a most respectable and scientific edifice: we subjoin a sketch of it.

Colebrook Dale Bridge.



The next cast iron bridge seen in this country was designed by the celebrated Thomas Paine: it was intended to be erected in America, and was an imitation of a catenarian curve: the Messrs. Walkers of Rotherham were the founders. Paine, however, became involved in his circumstances, and the bridge, after being exhibited at Pancras, was taken to pieces and the materials used in the bridge at *Wearmouth*, erected under the direction of R. Burdon, esq. and Mr. Thomas Wilson, and which was completed in 1796. It is near Sunderland, and is often called by the name of that place. This beautiful edifice springs seventy feet above low water mark; and the arch rises thirty feet, leaving a height of 100 feet in the whole for the passage of ships in the middle

of the stream: the span is 240. The abutments rest on a solid rock, but their own internal solidity appears to be doubtful. The weight of iron in it is 250 tons; 210 of them being of cast, and forty of wrought iron.

In the same year a bridge was erected at *Buildwas*, near Colebrook Dale by Mr. Telford; 130 feet in span, weighing 174 tons; and rising only seventeen feet in the roadway, but furnished on each side with a stronger arch, of about twice the depth. This indeed extends to the top of the railing, and assists both in suspending the part of the road which is below it by means of king-posts, and supporting the part nearer the abutments by braces and shores. The breadth is eighteen feet; and the construction would not be so easily applicable to a wider bridge.

Another iron bridge was erected in 1796 on the Parrot at *Bridgewater*, by the Colebrook Dale Company, consisting of an elliptic arch of seventy-five feet span, and twenty-three feet height, and resembling the bridge at *Wearmouth* in the mode of filling the haunches with circular rings.

Even failures may be useful to record as warnings. Two occurred at this time, one at *Yarn* in Staffordshire, and another in Herefordshire. The former was in a bridge of 180 feet span over the *Tees*; and the latter on a similar erection on the *Tarne*: both fell to pieces on the removal of their centres.

In 1803 an iron bridge of 181 feet span, and sixteen and a half rise, was completed at *Staines*, on the general model of that at *Wearmouth*, but its parts were connected somewhat differently. It began to sink, and some of the transverse pieces broke in a short time after it was finished, when upon examination it was found that one of the abutments had failed: and when this was repaired the other gave way in a similar manner. It was pushed outwards horizontally; and the architect seems to have trusted to the firmness of the iron, and the excellence of the workmanship, neglecting the calculation of the lateral thrust. The derangement, however, was not material.

Mr. Rennie's beautiful bridge over the *Witham* at *Boston* in Lincolnshire, we believe, was next in order of time. There is not a more elegant structure of this kind in the kingdom. The span is eighty-six feet, and the rise five and a half only; but the abutments are well constructed, and it has stood securely, notwithstanding the fracture of some of the cross pieces of the frames, which had been weakened by the unequal contraction of the metal in cooling.

Messrs. Jessop have erected two iron bridges at *Bristol*, of 100 feet span, rising fifteen; each of them contains 150 tons of gray iron; the expense of each was about £4000. The chords of their arches are segments of circles, of 100 feet in dimension, their versed sine fifteen; the diameter of the complete circle, of which the arch is a segment, 182 feet; and the height of the frame work of the arch at the vertex, two feet four. See plate BRIDGES.

In 1803 a light iron bridge, for foot passengers only, was thrown across the *Seine*, opposite to the gate of the *Louvre*. Narrow stone piers, leaving the lateral thrust uncompensated, are its

supporters, and there is great apparent deficiency in strength; but it is improbable than any failure should occur in such a situation, supposing the construction of the bridge itself to be sound. See plate BRIDGES.

In 1811 Mr. Telford threw an iron bridge over an arm of the sea, at Bonar in Sutherlandshire, Scotland. It consists of an arch whose chord is 150 feet, versed sine twenty feet, diameter of the circle, of which the arch is an abscissa, 301 feet, and the height of the frame-work of the arch at the vertex three feet.

But the two noble erections of this kind on the Thames have attracted the principal attention of engineers. Vauxhall Bridge, the first of them, was opened in August 1816: it consists of nine arches of cast iron, each of seventy-eight feet span, and between eleven and twelve feet rise. The architect was Mr. Walker. The breadth of

the roadway is thirty-six feet clear. The arches resemble those of Messrs. Jessop's bridges at Bristol; but the bridge has, on the whole, a lighter appearance, while the abutments are more compact and solid.

The Southwark, or Trafalgar Bridge, at the bottom of Queen Street, Cheapside, has been considered the finest iron bridge in the world. It consists of three magnificent arches, resting on granite piers and abutments. Mr. Rennie was the architect: and the arches were cast by Messrs. Walker and Yates, late of Rotherham in Yorkshire. The chord of the middle arch is 240 feet. Its curve is the segment of a circle of 624 feet diameter; its versed sine twenty-four feet; and the height of the frame-work of the arch at the vertex, six feet. See BRIDGES.

The following is the weight of half of the middle arch of this bridge:—

	8 Blocks. <i>t. cwt.</i>	3 Oblique Stays. <i>t. cwt.</i>	Cross Frames. <i>t. cwt.</i>	Crosses. <i>t. cwt.</i>	Spandrels. <i>t. cwt.</i>	Total. <i>t. cwt.</i>
No. 1	62 18	2 11	11 0	9 1	26 4	111 17
2	60 19	2 12	10 13	8 15	20 3	103 4
3	54 15	2 13	10 2	8 3	32 16	108 10
4	51 3	2 11	9 17		23 14	87 6
5	50 17	2 13	9 15		32 14	95 19
6	51 2	2 13	9 15		24 15	88 6
half 7	25 12	2 12			20 7	48 12
Covering plates	.	.	.	.	.	152 0
Cornice and palisades	.	.	.	.	.	77 5
Road way and pavement	.	.	.	.	.	650 0
Whole weight	.	.	.	.	.	1523 0
Springing plate	.	.	.	.	.	13 10
Abutment	.	.	.	.	.	11,000 0
Span 240 feet. Rise twenty-four. crown six feet; at the pier eight feet.					Depth of the blocks or plates at the	

We may notice that a still more splendid iron bridge of one arch was projected by Mr. Telford, and for some time under the consideration of a committee of the house of commons, as a substitute for London Bridge. The chord of the arch was to be 600 feet; and it was to have its centre not less than sixty-five feet high in the clear: but the opinions of respectable architects were so divided as to its merits that the plan was relinquished.

Minor erections of this kind are now common, and Mr. Telford has erected several aqueduct bridges on a large scale. One of these, near Wellington in Shropshire, cast by Messrs. Reynolds, was completed in 1796. It is 180 feet long, and twenty feet above the water of the river, being supported on iron pillars.

A large one was cast by Mr. Hazledine, for carrying the Ellesmere Canal over the river Dee, at Pontcysyllte near Llangollen. It is supported 126 feet above the surface of the river, by twenty stone pillars, and is 1020 feet in length and twelve feet wide. See plate II. fig. 4.

IRON FOUNDRY. See IRON MANUFACTURE.

IRON MANUFACTURE. This important branch of our manufactures has tended most materially towards establishing the commercial superiority of Great Britain over every other competitor. It is true that there are many parts of Europe that excel us both in the richness and quantity

of their iron ores; and we remember one instance in which a large mountain of pure metallic iron was found in an extensive mineralogical district in Sweden. But, generally speaking, the excellence and abundance of our fuel, with the vast capitals employed by British iron masters, have enabled us to materially improve the foundry process.

We may commence our examination of this subject by a reference to the process employed by the Romans.

The ancient mode of reducing the ores of iron is thus described by Agricola. A mass of brick-work was raised five feet in length and breadth and three feet and a half high, resembling a smith's hearth, except that in the middle of this was sunk a cup-shaped cavity or crucible, one foot in depth and half a foot wide, in the upper part of which was made a hole opening into a channel through the brick-work. This hole being closed with clay, the crucible was filled with lighted charcoal, heaped up so as to be above the level of the hearth; a blast of air was then admitted through a pipe let into the wall in the same manner as a smith's forge, and so contrived that the focus of the blast should be just above the centre of the crucible. Charcoal alone was added from time to time, till the heap became thoroughly hot, and then, at the discretion of the workmen, the ore, in very small

pieces, unroasted, but mixed with unslaked quick-lime, was laid on alternately with the charcoal. As soon as it had descended low enough to be within the immediate influence of the blast (which in a furnace of this construction would be in a few minutes) the lime and earthy part of the ore became fused into a slag, and enveloping the iron, now in a metallic state, sunk down into the crucible, displacing the charcoal with which it had been at first charged. The matter remaining at rest in the crucible gave an opportunity to the particles of iron to sink to the bottom, which they did in greater or less proportion according to the fluidity of the slag and the completely metallic state of the iron. After this process had been going on for the space of from eight to twelve hours, the crucible became filled with melted matter : at this time the hole which had been at first stopped up with clay was opened by means of an iron bar introduced through the channel in the brick-work, and the scoriae immediately flowed out, leaving the iron behind covered with hot charcoal. The blast being stopped, the furnace soon got sufficiently cool to allow the workmen to take out the iron, which was found imperfectly concreted together into a mass nearly of the shape of a wooden bowl : this being transferred to an anvil was first carefully hammered with wooden mallets to break off the encrusting scoriae and render it sufficiently compact to bear the tilt hammer, to which it was next subjected ; being then divided into five or six pieces, each was separately forged into a bar, and thus the operation was finished. The iron thus obtained was extremely tough and hard, but difficult to work, and was in great request for helmets and other articles of defensive armour, and in general for all purposes where toughness and hardness united were particularly required. The rich quality of the ore, and the circumstances under which it was reduced, were probably the chief causes of the excellence of this kind of iron ; a peculiarity however in the method of forging it may also have somewhat contributed to this ; for, while it was under the tilt hammer, an assistant stood by with a ladle of water, with which he sprinkled the bar as often as it was struck by the hammer.

The poorer ores, which were incapable of being smelted in the above method, were first picked, washed, and roasted, then reduced to pieces no larger than hazel-nuts, and reduced (no doubt with the addition of lime) in blast furnaces from seven to eight feet high and shaped like a chimney. In these a considerably greater heat could be produced than in the former, but it does not appear that the metal when taken out of the furnace was in the state of cast iron ; certain it is that it was always allowed to cool there, and was never run into pigs as is the modern practice.

However simple this process may at first view appear, it is attended with some very serious practical difficulties, and we may now describe another method by which the richer veins of iron ore may be worked. The ore being broken into small pieces is heaped upon a bed of charcoal in a very simple reverberatory furnace.

When the whole has been glowing hot for some time, the pieces, being now soft and at a welding heat, are by the dextrous management of the workmen brought in close contact with each other by means of an iron bar ; they are then lightly hammered while still in the furnace, and thus the whole mass acquires sufficient compactness to be removed to the anvil without falling to pieces ; it is now hammered with a gradually increasing force, the earthy impurities are thrown off, together with the scales of black oxide ; the lump is divided into pieces of a convenient size, which by repeated heating and hammering are drawn into bars. The rich red haematite, as appears from an experiment of Mr. Musket, is capable of being manufactured in the same way.

These ancient methods have fallen into disuse, not because the quality of the iron thus produced was objected to, but because the time and fuel consumed were enormous, and the iron that remained in the scoriae amounted at least to one-half of the original metallic contents of the ore.

When iron-stones are said to contain good or bad iron, the expression ought to be understood as a comparative assertion, confined to local rules, and judged by certain fixed local standards ; into the account of which many things must be taken, which are frequently overlooked. At every iron-work, a certain portion of fuel, coke or charcoal, by weight, is understood to be sufficient to smelt and manufacture a determinate weight and quality of iron-stones combined together, in order that a certain quality of crude iron may be produced. In this case, should a new iron-stone be substituted for one whose quality and effects are already known, and should its application be productive of iron less carbonated than formerly, it would instantly be denominated a bad iron-stone, or an iron-stone containing bad iron ; an assertion only true comparatively so far as it would affect the interest of the manufacturer, unless corrected by an addition of fuel, a change of the mixture of ores, or a varied application of the lime-stone used as a solvent or flux. But this is no proof that the quality of iron, as it exists in the ore, is bad, since a larger proportion of coke, or a change of mixture, which incurs no additional expense, can correct the evil. It rather furnishes a demonstration that the iron in all ores is the same : but that, in calling it into a metallic form, the quality is affected chiefly by the reduction of those mixtures originally united with it.

Taking as a general principle that the crude iron contained in all iron-stones is the same, and that it can be called into existence as a metal of all the various degrees of carbonation, by regulating the proportion of fuel and of the solvent, we shall proceed to mention those mixtures which determine the future quality of the crude iron.

1. Argillaceous iron-stone having fine clay as its chief component earth, lime in the next proportion, and both these nearly destitute of sand ; which, when properly torrefied, exhibits fibres on its internal surface, of a brown, dark brown, or claret color, running either in streaks or ra-

diated, and adhering tenaciously to the tongue, will afford, with a moderate proportion of cokes and lime-stone, iron of the finest quality, possessing strength conjoined with an intimate degree of fusibility.

2. Calcareous iron-stone, that which contains lime as its principal earthy mixture; holding clay in the next proportion, and both these comparatively unalloyed (totally they never are) with sand; which, when regularly torrefied, assumes a variety of shades generally lighter in the color than the former class, which sometimes, and sometimes not, presents internal fibres, and which adheres less tenaciously to the tongue; always contains iron which can be revived, richly carbonated with a comparatively small quantity of cokes, and with a trifling addition of lime. Under this class of iron-stones are found those which produce iron of a fusible nature, seldom connected with strength, but valuable for its utility in fine castings, which require ornament more than durability.

3. Those iron-stones whose component parts are nearly an equalised mixture of clay, lime, and sand, which torrefy with a slight degree of adhesion to the tongue, assuming a darkened or brownish color, void of every internal fibre, always afford, with the local proportion of fuel, iron of an intermediate quality for fusibility and softness, but generally possessing strength in an eminent degree. Such iron is excellently adapted for the manufacture of great guns, mortars, and the large species of machinery. Its application to the purpose of bar-iron making would also be attended with the most beneficial effects, possessing neither the extreme of fusibility nor of infusibility: it would greatly prevent, in the manufacturing, a tendency, which iron possessed of these extremes has, to become red or cold short.

4. Iron-stones which unite a large proportion of sand with sparing portions of clay and lime, which, upon being slightly exposed to heat, exhibit masses of semivitrification, neither obedient to the magnet, nor adhesive to the tongue, having a refractory disposition to part, and possessing a dark blue or blue color, always afford, with the usual proportion of fuel, crude iron of the worst quality, either as to strength or fusibility. Such metal is commonly highly oxygenated and brittle; incapable of being used alone for any melting purpose; and, when applied to the use of the forge, affords malleable iron, which possesses the cold short quality.

These are the four principal classes under which Mr. Mushet has arranged his iron-stones, with regard to their tendency to afford their iron carbonated, possessing strength, or otherwise, when smelted in the brass furnace with a determinate quantity of fuel. As this classification is exactly analogous to the results obtained in the large way, it may serve as a groundwork to those who may wish to attain a practical knowledge of these ores, so far as it relates to their manufacture.

It is, however, easy to counteract the natural tendency which every iron-stone has in this case, to afford its iron of a certain quality, and to make each of them yield crude iron of all the

different degrees of fusibility and strength. Is it not obvious, since the qualities of crude iron depend upon the mixtures and their kinds composing the stones, that, if nature be assisted by adding or subtracting from them in the blast-furnace, every quality of crude iron may be produced from the same iron-stone?

The usual criterions by which iron-stone is judged, whether it be sufficiently rich in iron for the purpose of smelting, are the following:—

1. The degree of tenacity with which it adheres to the tongue after torrefaction.
2. Its color.
3. The obedience to the magnet when pulverised.
4. By depriving of its iron a given weight of the ore, in contact with charcoal and fusible earths in the assay furnace.

The first and third of these methods are liable to great error. The adhesion to the tongue will be more in proportion to the quantity of clay and its kind contained in the stone, than to its real contents in iron. Iron-stone may also be torrefied in such a manner as to deprive its internal surface of this property; as it is only peculiar to the stone at a certain stage of torrefaction.

The influence which the magnet possesses over some ores of iron is no direct proof of the quantity of iron contained, as some ores which contain fifteen parts in 100 are completely magnetic, while others again that contain sixty to seventy parts of iron in 100 are not in the smallest degree affected with this property. The magnetic test is more used to ascertain the existent state of the metal, whether mineralised with an acid, combined with sulphur or with oxygen, or existing in a disengaged state more or less metallic. No iron-stones, which in their native state contain their iron mineralised with oxygen, or in the state of an oxide, completely dispersed through an intimate combination of clay, lime, and silex, containing water, carbonic acid, and sometimes concrete sulphur, are obedient to the magnet till such time as torrefaction has passed upon them, either exposed to open air, or in contact with charcoal in close vessels. If this process is continued for a short time, the whole mass will become obedient; but this affection will still depend upon the relative quantity of concrete oxygen fixed with the iron. Individually, however, iron-stones are affected by the proportion of heat conveyed to them while torrefying. If the quantity communicated has been sparing, so as not to have carried off all the water, carbonic acid, &c., the magnetic virtue will also be proportionally absent; if the dissipation of these substances has been complete, the magnet will possess an influence in the exact ratio of the quantity of oxygen which remains combined with the metal. Should it happen that a degree of heat, capable of exciting fusion, is applied, the mass will then rapidly lose its magnetic obedience by an extra-fixation of oxygen; if driven so far as to make it exhibit a semi-vitrified appearance, this principle would be found to be entirely annihilated.

Although the color which iron-stones assume in torrefying intimately depends upon the degree of heat presented to them in the operation of burning, yet, by regulating this agent in a

proper manner, an accurate knowledge may be formed, not only of the probable quantity of iron, but even of its tendency to become carbonated in smelting. The expulsion of the water and acid leaves the combined earths more exposed to determination. The small specula of silex are distinctly discerned; adhesion to the tongue develops the presence of clay; and lime is indicated by its assuming a whitish color, either striated or disseminated, approaching towards the surface of the stone.

The last method mentioned, namely, that of depriving a given portion of ore of its iron, is the most consonant to truth and to the ideas of the manufacturer. Acids may be used as a check upon the assay by fusion; but this intricate, or rather this slow process, is chiefly resorted to by chemists, and seldom goes beyond the bounds of the laboratory. In assaying by fusion, not only the quantity of iron may with precision be ascertained, but also the quality of crude iron likely to be produced from the ore, with the local proportions of fuel in the large way. The earths formerly united with the iron now become fused with those added for solvents. These float upon the surface of the extracted metal, and, when cold, may afford information, from their color and transparency, concerning the regulation of future proportions upon a more extended scale.

The art of roasting iron-stone (technically called its calcination) has by some been consi-

400 grains of iron-stone,	139 grains of iron = 33½ per cent.
50 grains of finely-pulverised coke,	123 grains of iron = 41½ per cent
300 grains of iron-stone,	132 grains of iron = 44 per cent.
60 grains of finely-pulverised coke,	
300 grains of iron-stone,	
75 grains of finely-pulverised coke,	

The last reduction may be considered as nearly a perfect assay of the ore, which in many cases, where the earthy matters are nearly in equal proportions, may be accurately performed without the addition of any flux.

Some masses of the same substance not previously roasted, weighing 6024 grains, were put into a crucible along with coke-dust, and a pyrometer roll filled at 1°. After an exposure of ten hours to a bright heat, the pyrometer was found to indicate 28°, and the iron-stone had lost in weight forty-two per cent., or ten per cent. more than when roasted in the common way. This may be attributed to the loss of oxygen, in consequence of the metallic particles being exposed in contact with carbonaceous matter. The iron-stone, when washed, and perfectly freed from this substance, was of a grayish-blue color, adhesive to the tongue, possessed of a metallic taste, and, when pulverised, deflagrated in flame.

400 grains of the common roasted iron-stone, for the sake of comparison, were fused alone, and afforded a dense, shining, opaque glass, without any metallic separation.

400 grains of the cemented deoxidated ore were reduced to the same size, and fused under the same circumstances, from which resulted a prismatic colored button of iron, weighing 120 grains, or thirty per cent.

dered as an operation in which, for the first time, the iron-stone unites with a portion of oxygen, and in so far as this requires to be again removed in the smelting furnace, previous to separation, it has been deprecated or thought unnecessary. Practice, however, has more clearly in this, than in any other metallurgical operation, determined the utility and necessity of roasting the ores, previous to their being smelted.

Iron-stones in general, in roasting, lose from thirty to thirty-five per cent. of their weight. Torrefaction commences with a change of color upon the surface, which keeps penetrating as the process advances. When the iron-stone is of one uniform color throughout, the operation may then be considered as perfect; if a mass of the iron-stone be broken in the interim, the un-roasted part will be found occupying the centre, and of a blackish color. Some hours are necessary to roast thoroughly, even a small piece of iron-stone; the same effects however may be produced in two minutes, by exposing iron-stone, finely pounded, upon a red-hot plate. The change of color in this case is rapid; it almost instantly becomes brown, then black, though in cooling it usually returns to a brownish-red, or dirty-purple color.

An iron-stone, that had lost thirty-two per cent. in roasting, was pounded very small, fused, and yielded as follows:—

139 grains of iron = 33½ per cent.
123 grains of iron = 41½ per cent
132 grains of iron = 44 per cent.

In another experiment 4281 grains of the same iron-stone, in pieces, were exposed for twenty-four hours, in contact with coke-dust, to a heat that, by the pyrometer, indicated 69° of Wedgewood; loss in weight equal to forty-three per cent., so that fourteen hours of longer exposure, and double the temperature, had only produced a further deoxidation of one per cent. beyond that obtained in the first cementation. The pieces of iron-stone were now completely metallic, compact, and brightened under the fire.

300 grains of this deoxidated iron-stone yielded by fusion, per se, a mass of soft malleable iron, weighing 113 grains, or thirty-seven and two-thirds per cent.

300 grains, to which were added fifteen of coke-dust, yielded by fusion 163 of iron, or fifty-four and one-third per cent.; five grains of coke were found in the crucible unacted upon, so that ten grains of coke were employed in reviving the additional fifty grains of iron.

200 grains of roasted iron-stone were fused, per se, in a black-lead crucible: forty-nine grains of iron, or twenty-four and a half per cent., was the result.

200 grains of iron-stone, deoxidated at 69°, were similarly exposed and fused, from which resulted ninety-two grains of iron, or forty-six per cent.

The iron-stone subjected to the foregoing experiments, when roasted, yielded forty-four per cent. of iron, and lost in roasting thirty-two per cent.; so that the ore in its native state contained thirty-three per cent. of iron. After the rate of forty per cent. this would furnish us with a quantity of oxygen equal to 13·2 per cent., united originally with the iron. Now the ponderable matter got rid of by the cementation, in the experiments at 28° of Wedgwood, was the difference between thirty-two and forty-two, or ten, and in that of 69° the difference was equal to 11°; a coincidence sufficiently near to warrant the conclusion, that the iron of our iron-stone is not only in the state of an oxide, but that the dose amounts to forty per cent. at least; for it cannot for a moment be supposed that any process of cementation, confined to an inferior range of temperature, could separate from the ore the last portions of oxygen, which it is even probable resist the higher temperature, and more perfect operation of the smelting furnace.

In the process of smelting, two things are absolutely essential to the separation of the iron. First, the metal itself must be rendered fluid, which will then, by its great specific gravity, descend to the lowest parts of the furnace, and some other compound must, at the same time, be separated in a liquid form, so as to float upon its surface, and defend itself from the influence of the blast. If the ore consisted of iron and oxygen alone, the carbon of the coke would combine with the oxygen; and an excess of carbon would also unite with the iron to render it liquid at that temperature; but here would be a deficiency of the fluid vitreous matter necessary to the defence of the iron from the oxygen of the blast. Hence it will be necessary to employ some substance, with such iron ore, which shall be capable of forming a liquid scoria, or cinder, for the preservation of the carbonated iron when once obtained. So far as observation has dictated, it would seem that the cinder cannot be too perfectly fluid. The principles on which the fusibility of the cinder depends are not simply confined to the materials used in the smelting of iron, but refer to all compound fusible matter with which we are acquainted. It may be observed in general, and indeed almost without exception, that an alloy of two metals is fusible at a temperature much less than the arithmetical mean between the fusing points of the metals. For instance, an alloy of lead and tin is more fusible than either of the metals composing it, and a similar mixture of copper and silver may be used as a solder for either silver or copper separately. This property is not less conspicuous in the earths; none of them in their pure state can be fused in our hottest furnaces, nor scarcely with a stream of oxygen gas; although certain proportions of them are, together, fusible at the heat of a moderate air-furnace. Lime and clay, when separately taken, may be considered as incapable of fusion at any degree of heat yet produced in furnaces; and still, in certain proportions, they are too fusible to be made into even bricks or crucibles. It will appear, from these facts, that the iron-master cannot pay too much attention to the subject of the

relative fusibility of the earths in different proportions. Most of the iron ores of this country are argillaceous; that is, consist, besides oxide of iron, of a small quantity of silex or flint, and a large proportion of clay. Limestone has always been employed for such ores, and by combining with the clay and flint, as well as with a small portion of oxide of iron, forms a scoria or cinder easily capable of fusion.

Lancashire ore, when reduced to a small size, and heated on an iron-plate till it becomes of a black color, loses only from four to five per cent. of its weight; iron-stone, in the same time, would lose from twenty-five to thirty-five per cent.; as the ore cools, the black passes off, and the native red color returns. In this state it has acquired a slight, though perceptible, obedience to the magnet. If the ore is heated for two hours, it loses in all from six to seven per cent., and is then strongly magnetic, rendering it probable that the magnetic force in this case is more the result of a new arrangement of the metallic particles, than of the expulsion of so small a quantity of water.

If the exposure of this ore be still further continued, and particularly with an increase of temperature, it will regain its lost weight, assume a vitreous sort of fracture, and lose its obedience to the magnet; such increase of weight being undoubtedly owing to a farther dose of oxygen uniting with the iron, which is never found to exceed that of the water expelled in the more moderate temperature; and it may sometimes happen, in experiments of this nature, that the ore, after being roasted for eight or ten hours, will weigh as much as when first introduced into the furnace; though, had it retired at an earlier stage of the operation, the deficiency of weight would have been as before stated.

In general, when Lancashire ores (according to the sorts) are cemented in contact with carbonaceous matter, a loss of weight is sustained of from twenty-five to thirty-five per cent.; from which is to be deducted that weight, consisting of water, which the ore would have lost by being exposed to a low red heat, leaving the difference to express the quantity of oxygen removed from the ore during the operation. The following may be considered as a near approach to the constituent parts of the richest and densest species of the Lancashire hematites:—

Iron	64·0
Oxygen united with iron	24·5
Earthy matter	5·0
Water	6·5
<hr/>	
100·	

The proportion of oxygen united in this analysis is under forty per cent.

When the ore has been roasted it is taken to the smelting or blast furnace, the lower part of which is filled with either charcoal or coke; the coke is always a fixed quantity, and the proportion of limestone added to the ore is according to the quantity of heterogeneous matter with which the metal is combined.

A section of the *blast furnace* is represented in fig. 1, plate IRON MANUFACTURE. A, at the top

of the furnace, is an opening for the introduction of the materials; B the body of the furnace; C the place where the blast is introduced; and D a cavity to receive the metal when released from the earthy matter. The materials in the furnace are, previously to the introduction of the blast, heated simply by the draught of the atmosphere; the coke and limestone to a bright red or white heat, and the iron ore to a melting red. When the blast is introduced, the metal immediately above it is brought into a state of fusion, and penetrates through the fuel into the cavity D. The ore and fuel that were above it sink down to fill up the space left by the ore melted and the fuel consumed. This next comes under the operation of the blast, and is similarly reduced. The men who attend the furnace keep adding fuel, ore, and limestone, through the opening A, at the top, and the operation of smelting goes on, until the melted iron, in the cavity D, rises nearly to a level with the tuyere irons, or blast pipes. The melted iron is then tapped, by driving a round-pointed bar into a sort of loan, with which the hole is stopped, and runs into moulds made in sand; in this state it is called pig or cast iron. When the slag, in smelting, has a greenish-gray appearance, it is a certain sign that the furnace is in excellent order.

Many methods have been adopted to obtain a regular and uniform blast. The first of these has already been noticed under the article *BLOWING MACHINE*; but, as this method of regulating the blast has been found to be far from perfect, other means have been resorted to with a view of obtaining the desired end. The one called the water-regulator consists of a large cistern, in which another of less area and capacity is inverted. Through the bottom of the smaller cylinder, which is, from its being inverted, uppermost, a pipe communicates with the blowing cylinder. This inner cistern is filled with water, as is also the space between the inner and the outer cistern to the same level. Now, supposing the air to be forced from the blowing cylinders through the above-mentioned pipe into the inner cistern, the water, being displaced by the air, will descend in the inner cistern, and rise up between the two vessels till the column of water on the outside is equal to the required force of the blast; this column would be about four pounds upon a square inch, and about nine feet. Another pipe proceeds from the same cavity in the inner vessel to the furnace, and communicates nearly a uniform blast, varying only with the outer column of water, which will be less as the outer surface of the water is greater. This contrivance, though for some time considered an important discovery, has, in many instances, been abandoned, owing to its carrying water, both in a state of spray, produced by the agitation, and in a state of vapor, into the furnace, by which both the quantity and the quality of the iron was materially affected.

Another mode has been attempted to equalise the blast, called the air vault. The first experiment of this nature was tried at the Clyde iron-works, by excavating a large cavity in a rock; but the trial was unattended by success, partly from the vault not being air-tight, and partly from the

moisture which exuded from the rock mixing with the air.

A more successful experiment was made, at the Carron works. An air-vault of wrought iron plate has been employed in one of the furnaces at Bradley, in Staffordshire, which appears to answer very well. Its form is a cylinder, about ten or twelve feet diameter, and fifty or sixty feet long.

According to an average deduced from a series of experiments made by Mr. Mushet, it appears, that, when the outer air was from 63° to 68° , the air, immediately after its escape from the blowing cylinders into a receiving vessel, was increased from 63° to 90° , and from 68° to $99\frac{1}{2}^{\circ}$. In an average of thirty experiments the air in the act of condensing was raised 30° . This would have the effect of increasing its volume not less than one thirty-eighth of the whole, and the increased pressure of the blast, by this cause alone, would be nearly half a pound upon an inch. Or, in other words, if the air were introduced into the furnace at 60° , the same quantity would be admitted with half a pound less pressure upon an inch than if it were 90° . Hence any means of cooling the air after its condensation, in all seasons of the year, must be attended with beneficial consequences. If the air-vault were made of wrought iron, and its surface constantly kept wet, the evaporation from so great a surface, if freely exposed on all sides to the air, would cool the air very considerably. Indeed, without the aid of the moisture, the effect would be such as to recommend its adoption. It was supposed, that in the summer season there would be some advantage in bringing the air under ground for a considerable distance before it entered the blowing machine; but the resistance arising from the friction on the sides of the channels through which it must pass has been found an insurmountable obstacle.

The *puddling furnace* was originally invented by Mr. Cort, and is a most important appendage to the iron works. In its general form it nearly resembles the ordinary air furnace. It is heated by means of pit-coal, on a grate; and has a chimney of considerable height, in which there is a damper to regulate the degree of heat while puddling. A considerable portion of the space between the grates and the chimney is formed flat, and covered with a peculiar sand, possessing the properties, when heated, of becoming very hard and infusible. On this space is placed three or three and a half hundred weight of finers' metal, and the flame allowed to pass over it with the full force of the fire. In twenty minutes the iron assumes a yellowish-white color, and marks of fusion appear on the angles of the pieces; the puddler then turns up new surfaces to the flame, and keeps breaking those which have reached a softened state. This he continues, at intervals, till the charge has subsided into a thick clotted sort of fusion. The furnace, at this period, is reduced to its lowest temperature; part of the furnace bars and fire are withdrawn, and the damper nearly shut; the puddler keeps stirring and moving the iron backwards and forwards, which now begins to ferment and emit flashes of a bluish colored flame. This operation is con-

nued till these appearances fall off, and till the iron becomes less clotted, and begins, in the language of the workman, to dry. His exertions are redoubled, and soon the whole charge is reduced to the state of the finest saw-dust; it is now said to be dry, and so totally free from cohesion that it may be moved about like as much sand.

At this stage of the operation the grate bars are replaced, the fire repaired, the damper elevated, and the heat is in consequence increased, though gradually. The grains of iron become tipt with a snowy whiteness, resembling the welding of iron; they no longer repel each other, but begin to adhere in small masses; these increase in size as the temperature of the furnace is raised. When the charge begins to work heavy, the puddler selects a nucleus, and rolls it over and over upon the coalescing masses, till he has got it of the weight of sixty or seventy pounds; he then places this on the flame side of the furnace, and begins anew the operation of balling; repeating this till the whole charge is balled up.

A heavy iron instrument, called a *dolly*, is then introduced into the furnace, and with this the balls are in succession beaten to give them more cohesion in rolling. When properly heated, they are removed by tongs from the furnace, and slid along iron plates to the rolling machine. Here the lumps or balls are each, in succession, passed through rollers, grooved diagonally, acquiring as they pass additional cohesion and firmness, and assuming the form of a bloom. This is then presented to another pair of rollers, with flat openings or grooves, and rolled into a bar of three or four inches in breadth, and from half an inch to three-fourths of an inch in thickness.

The whole operation of rolling one of the balls is performed in a minute and a half, and pleases while it astonishes the observer, by the rapid change which is thus passed upon matter the most unshapely and refractory. The whole time taken up to complete a charge from the puddling furnace is only from two to two and half hours; the loss sustained is from ten to twelve per cent. One furnace will discharge five or six heats in twelve hours, and make in one week from ten to twelve tons of rough bars. A set of rollers, moved by a thirty horse power engine, will rough down in a week 200 tons of such iron, and keep twenty puddling furnaces at work, for which three or four refineries or running out fires will be necessary. The material thus produced is called mill-bars, which require another operation before they are finished. For this purpose they are carried to a pair of large steel shears, and cut into regular lengths, proportionate to the bar ultimately intended to be made. These pieces are then piled on each other in reference to the required thickness, as the cutting was to the requisite lengths, and are introduced into the reheating furnace. A welding heat by the flame of pit coal is here made to operate for the space of twenty minutes; they are then, one by one, taken to another set of rollers similar to the first, and each pile is brought down in the diagonal grooves to a certain size; they are then put into the finishing rollers, and rapidly formed into

bars of the most perfect form and accurate dimensions.

The *tilt-hammer* is a most important appendage to the iron manufacturer. It differs from the common forge, however, by being poised on a centre of motion, about the middle, or two-thirds of the length of the helve from the head, and from receiving its motion from cogs acting upon the tail of the helve. In some few cases the ash spring is placed over the head of the hammer, but in general, the tail of the helve is made to strike against a fixed floor, and the hammer, from the force it has received, continuing to rise after the tail strikes the floor, the helve bends, and by its elasticity causes the hammer to descend with greater force upon the anvil.

The tilt-hammer is represented in figure 2. It is taken from a tilt-mill made at the Carron iron-works in Scotland, after designs of the celebrated Mr. Smeaton. It is adapted for forging iron into bars. In this apparatus *c* represents the iron head of the hammer, *f* its centre of motion, and *d* the tail or extreme end, upon which the cogs of the wheel act, and which is plated with iron on the upper side, to prevent it from wearing. *P* is the anvil-block, which must be placed on a very firm foundation, to resist the incessant shocks to which it is subjected: the centre *j*, or axis of the hammer, is supported in a cast-iron frame *gh*, called the hirst. When the cogs of the wheel strike the tail of the hammer suddenly down, and raise the head, the lower side of the tail of the hammer strikes upon a support *n*, which acts to stop the ascent of the head of the hammer *e*, when it arrives at the desired height; but, as the hammer is thrown up with a considerable velocity as well as force, the effort of the head to continue its motion, after the tail strikes the top *n*, acts to bend the helve *L* of the hammer, and the elasticity of the helve recoils the hammer down upon the anvil with a redoubled force and velocity to that which it would acquire from the action of gravity alone.

To obtain this action of recoil, the hirst *gh* must be held down as firmly as possible; and, for this purpose, four strong iron bolts are carried down from the four angles of the bottom plate *h*, and made fast to the solid basis of stone *RR*, upon which the whole rests; upon this base are placed four layers of timber *i, k, l, m*, which are laid one upon another, and the timbers of each layer are laid cross-ways over the others. Each layer consists of several pieces laid side by side, and they are slightly tree-nailed together, to form a platform. Each platform is rather less than that upon which it rests, so as to form a pillar of solid timber; on the top of which the hirst-frame *gh* is placed, and firmly held down by the four bolts, which descend through all the platforms, and have secure fastenings in the solid masonry beneath.

The stop *n* is supported by a similar pillar, but smaller, and composed of three layers: the upper-piece *n*, which is seen cross-ways, is about three feet long, and the under side is hollowed, so that the piece bears only upon the two ends, leaving a vacancy beneath it, which occasions it to bend or spring every time the tail *d* of the hammer strikes upon it, and this aids the recoil-ing action very much.

The axis on which the hammer moves is formed by a ring of cast iron, through which the heve of the hamuneris put, and held fast by wedging round it. The ring has a projecting trunnion on each side, ending in an obtuse conical point, which is received in a socket firmly fixed in the hirst-frame g h, by screws and wedges, one of which is seen at r. These two sockets are thus capable of adjustment, so as to make the hammer-face fall flat up on the anvil.

In the Carron iron-works three hammers are worked from the same shaft. In such case it is necessary to have the three wheels that communicate motion to their respective hammers of different sizes and numbers of cogs, to produce that velocity in each hammer which is best adapted for the work it is to perform; thus the wheel for the hammer, which is represented in fig. 3, has eight cogs, and therefore produces eight blows of the hammer for each revolution of the fly-wheel; the wheel for the middle hammer has twelve cogs; and the wheel for the smaller hammer sixteen; the latter will therefore make two strokes for every one of the great hammers. In fixing the three wheels upon the great shaft, care is taken that they shall produce the blows of the different hammers in regular succession, and equalise as much as possible the force which the water-wheel must exert. The wheels are fixed on the shaft by means of a wedging of hard wood, driven in all round; the wood being capable of yielding a little to the shocks occasioned by the cogs meeting the tails of the hammers, renders the concussions less violent.

The following are the principal dimensions:—The head of the great hammer weighs $3\frac{1}{4}$ cwt., and it is intended to make 150 blows per minute; it is lifted seventeen inches from the anvil at every blow.

The middle hammer is 2 cwt., and makes 225 blows per minute; it is lifted fourteen inches each time.

The small hammer weighs $1\frac{1}{4}$ cwt., and makes 300 blows per minute; it is lifted only twelve inches.

To produce these velocities, the great axis upon which the cog-wheels are fixed must make $18\frac{2}{3}$ turns per minute and the pinion upon this axis being in proportion with the cog-wheel upon the shaft of the water-wheel as 1 is to 3, the water-wheel must make $6\frac{1}{3}$ revolutions per minute; the water-wheel being 18 feet diameter, its circumference will be $18 \times 3\cdot1416 = 56\cdot54$, or $56\frac{1}{3}$ feet; this multiplied by $6\cdot25$ is about 353 feet motion per minute, or divided by $60 = 5\cdot9$ feet motion per second for the circumference of the water-wheel.

In making the most highly carbonised iron, or what is called No. 1, it sometimes happens that a portion of the iron unites with a great excess of carbon, forming a substance which, when cold, appears in bright shining scales. It is found to possess most of the properties of plumbago, differing from that substance only in containing less carbon. This carburet is no doubt in the liquid form in the furnace, and, being of much less specific gravity than the iron, floats upon its surface. It is so much more infusible than the

metal, that, before the iron enters the moulds of the pig-bed, it is seen swimming at the top in the scaly form as before-mentioned.

This substance is called by the workmen *kish*; and, whenever it appears, it is a certain sign that the furnace is working on the best sort of iron. So surely, indeed, is it the case, that No. 1, or the most highly carbured metal, has received the epithet of *kishy*, because *kish* is the common attendant on its production.

Heated air has been very successfully applied to blast furnaces at the Clyde iron works. It is now completely ascertained that iron may be smelted by heated air with three-fourths of the quantity of coals required with cold air, that is, air not artificially heated; while the produce of the furnace in iron is at the same time greatly increased. All the furnaces at the Clyde iron works are now blown with it. At these works the air, before it is thrown into the blast furnaces, is heated to 220° Fahrenheit, in cast iron vessels placed on furnaces, similar to those of steam-engine boilers. It is expected that a higher temperature than 220° will be productive of a proportionally increased effect; but this is still the subject of experiment. It is calculated that this improvement will accomplish a saving in the cost of the iron smelted in Great Britain to the amount of at least £200,000 a-year. The fact that heated air is better adapted than cold air to promote combustion is now incontestably established by experiment. No argument to the contrary is afforded by what is also a fact, that a fire burns better in cold than in warm weather. The fire burns better in the former than in the latter case, not because the air is cold, but because it is dry. Let cold air be artificially heated, and its superiority in promoting combustion, over air naturally of the same temperature, but not artificially heated, will be apparent. It has been attempted to account for this fact in various ways. The most simple theory seems to be, that air is not fitted to promote combustion, till it reach a high temperature, and that a quantity of fuel is expended in raising it to this temperature, before it can be of any use in promoting combustion. The question, therefore, resolves itself into this: whether it is more economical, in respect of fuel, to heat the air in the smelting furnace, where it comes into contact with the coke, and carries it off in the form of carbonic acid gas, or to heat it previously in a separate furnace. The experiments at the Clyde iron works show that it is heated in the separate furnace with one-eleventh part of the fuel that is required to heat it in the smelting furnace, when allowed to come into contact with the coke. One reason why that should be the case is very obvious: in the smelting furnace the air is heated with coke, in the separate furnace with coals. These observations do not apply to the mode of heating the air in a close vessel, by means of the smelting furnace itself, before it is allowed to come into contact with the coke. The experiments with respect to this mode of heating air are still in progress.

Pig-iron, when divested of its carbon, becomes malleable, and we have in this country many extensive manufactorys for the express pur-

pose of converting articles made of cast-iron, such as nails, cutlery, &c., into iron perfectly malleable, without altering in the slightest degree the figure given to them in the casting. We have even seen nails made in this way welded together, and when cold bent at right-angles in a vice.

The method of releasing the pig-iron of its carbon, or of converting it into what is called wrought or malleable iron, is by placing it in an open furnace, termed a refinery, and by some a run-out furnace, heated by cokes, and subjected to the operation of a very powerful blast. The pig-iron is laid upon the cokes, and is soon melted, leaving much of its impurity behind. This is termed refining it. The metal when melted is run into plates, about four inches thick, and, as soon as it becomes set, is thrown

into water, which makes it more frangible, and easier to be broken.

The refining furnace is represented in figs. 4, and 5. A is a recess or trough, made of cast metal, having a bottom of fire-stone or brick. This recess is surrounded on three sides by a cavity, through which water is constantly passing from the cistern C; p, p, are two pipes connected with the blowing machine, and entering into conical openings in the refining furnace. These pipes are kept cool by water from the pipe d, which runs off at the pipe b c c. B is a shallow recess, about four inches deep, to receive the melted mass.

We may now furnish a table of the average weight of iron bars, each bar being ten feet in length:—

Inches.	Cwt. qr.	lb.	Inches.	Cwt. qr.	lb.	Inches.	Cwt. qr.	lb.
6 × $\frac{3}{4}$	1	1	15	3 $\frac{1}{4}$ × $\frac{3}{4}$	0	3	12	2 $\frac{1}{4}$ × $\frac{5}{8}$
$\frac{5}{8}$	1	0	13	$\frac{5}{8}$	0	2	24	$\frac{1}{2}$
$\frac{3}{4}$	0	3	19	$\frac{1}{2}$	0	2	8	$\frac{3}{8}$
$5\frac{1}{2}$ × $\frac{3}{4}$	1	1	1	3 $\frac{1}{2}$ × $\frac{3}{4}$	0	1	20	$2\frac{1}{8}$ × $\frac{3}{4}$
$\frac{5}{8}$	1	0	6	$\frac{3}{8}$	0	3	5	$\frac{5}{8}$
$\frac{1}{2}$	0	3	10	$\frac{5}{8}$	0	2	18	$\frac{9}{16}$
5 × $\frac{3}{4}$	1	0	13	$\frac{1}{2}$	0	2	4	$\frac{1}{2}$
$\frac{3}{8}$	0	3	23	$\frac{5}{8}$	0	1	16	$\frac{3}{8}$
$\frac{1}{3}$	0	3	2	3 $\frac{1}{4}$ × $\frac{3}{4}$	0	2	27	2 × $\frac{3}{4}$
$4\frac{1}{4}$ × $\frac{3}{4}$	1	0	10	$\frac{5}{8}$	0	2	14	$\frac{5}{8}$
$\frac{5}{8}$	0	3	19	$\frac{1}{2}$	0	1	27	$\frac{9}{16}$
$\frac{1}{2}$	0	2	25	$\frac{5}{8}$	0	1	14	$\frac{1}{2}$
$\frac{3}{8}$	0	2	5	3 × $\frac{5}{8}$	0	2	22	$\frac{3}{8}$
$4\frac{1}{2}$ × $\frac{3}{4}$	1	0	4	$\frac{5}{8}$	0	2	8	$1\frac{1}{8}$ × $\frac{3}{4}$
$\frac{5}{8}$	0	3	13	$\frac{1}{2}$	0	1	23	$\frac{5}{8}$
$\frac{1}{2}$	0	2	21	$\frac{5}{8}$	0	1	10	$\frac{9}{16}$
$\frac{3}{8}$	0	2	11	2 $\frac{1}{4}$ × $\frac{3}{4}$	0	2	14	$\frac{1}{2}$
$4\frac{1}{4}$ × $\frac{3}{4}$	0	3	25	$\frac{5}{8}$	0	2	2	$\frac{3}{8}$
$\frac{5}{8}$	0	3	7	$\frac{1}{2}$	0	1	20	$1\frac{1}{4}$ × $\frac{3}{4}$
$\frac{1}{2}$	0	2	17	$\frac{5}{8}$	0	1	7	$\frac{5}{8}$
$\frac{3}{8}$	0	2	0	2 $\frac{1}{2}$ × $\frac{3}{4}$	0	2	8	$\frac{9}{16}$
4 × $\frac{3}{4}$	0	3	19	$\frac{5}{8}$	0	1	25	$\frac{1}{2}$
$\frac{5}{8}$	0	3	1	$\frac{1}{2}$	0	1	15	$\frac{3}{8}$
$\frac{1}{2}$	0	2	12	$\frac{5}{8}$	0	1	4	$1\frac{1}{2}$ × $\frac{3}{4}$
$\frac{3}{8}$	0	1	24	2 $\frac{1}{4}$ × $\frac{3}{4}$	0	2	5	$\frac{5}{8}$

IRON-MOULDS, and spots of ink in linen, may be taken out by dipping the stained part in water, sprinkling it with a little of the powdered essential salt of wood-sorrel, then rubbing on a plate, and washing the spot out with warm water.

IRON MOUNTAINS, The Great, in the territory of the United States, extend from the river Tennessee to that of the French Broad, from south-west to north-east; farther to the north-east, the range has the name of Bald Mountains; and beyond the Nolachucky, that of Iron Mountains. This range constitutes the boundary between the state of Tennessee and North Carolina, and extends from near the lead mines on the Kanawha, through the Cherokee country, to the south of Chota, and terminates near the sources of the Mobile. The caverns and cascades are innumerable.

IRON-SICK, in the sea language, is applied to a ship or boat, when her bolts or nails are so eaten with rust, and so worn away, that they occasion hollows in the planks, whereby the vessel is rendered leaky.

IRON-WOOD, in botany. See SIDEROXYLON.

IRON-WORT, in botany. See SIDERITIS.

IRONY, *n. s.* Gr. *εἰρωνεία*; Fr. *ironie*.

IRON'ICAL, *adj.* A mode of speech in

IRON'ICALLY, *adv.* which the meaning is contrary to the words, used in joke or derision: ironical, sarcastic; playful; speaking by contraries: ironically, by the use of irony. The address of Elijah to the worshippers of Baal is a fine example of this mode of address, wherein he says, 'Cry aloud, for he is a god,' &c.

Socrates was pronounced by the oracle of Delphos to be the wisest man of Greece, which he would turn from himself ironically, saying, There could be

nothing in him to verify the oracle, except this, that he was not wise, and knew it; and others were not wise, and knew it not.

Bacon.

In this fallacy may be comprised all *ironical* mistakes, or expressions receiving inverted significations.

Browne.

The dean, *ironically* grave,
Still shunned the fool, and lashed the knave.

Swift.

So grave a body upon so solemn an occasion, should deal in *irony*, or explain their meaning by contraries.

Id.

IRONY, in rhetoric, is when a person speaks contrary to his thoughts, in order to add force to his discourse; whence Quintilian calls it diversiloquium. Thus, when a notorious villain is scornfully complimented with the titles of a very honest and excellent person; the character of the person commended, the air of contempt that appears in the speaker, and the exorbitancy of the commendations, sufficiently discover the irony. Ironical exhortation is a very agreeable kind of trope; which, after having set the inconveniences of a thing in the clearest light, concludes with a feigned encouragement to pursue it. Such is that of Horace, when, having beautifully described the noise and tumults of Rome, he adds ironically,

'Go now, and study tuneful verse at Rome!'

IROQUOIS, the name of six nations in North America, in alliance with the British colonies. Their country is bounded by Canada on the north, by New York and Pennsylvania on the east and south, and by lake Ontario on the west. In the American war they were allies of Great Britain; and had all their towns destroyed. They have since lived on grounds called the State Reservations, which are settled on all sides by white people, by whose industry the boundaries of the desert are continually encroached upon. The number of inhabitants in all the six nations was, in 1796, 4058. The Stockbridge and Brotherton Indians, who now live among them, added, make the number 4508, of whom 760 live in Canada, the rest in the United States.

IRRADIANCE, *n. s.* Lat. *irradio*. From **IRRIDANCY**, *n. s.* in and *radius*. Emiss-

IRRIDIATE, *v. a.* sion of rays or beams

IRRADIATION, *n. s.* of light: to adorn by the streaming forth of rays of light; to enlighten; to animate; to decorate by shining ornaments: irradiation, the act of emitting rays of light, material or intellectual.

If light were a body, it should drive away the air, which is likewise a body, wherever it is admitted; for, within the whole sphere of the irradiation of it, there is no point but light is found.

Digby on Bodies.

Celestial light

Shine inward, and the mind through all her powers Irradiate; there plant eyes; all mist from thence Purge and disperse.

Milton's Paradise Lost.

Love not the heav'ly spirits? Or do they mix irradiance virtual, or immediate touch?

Milton.

Ethereal or solar heat must digest, influence, irradiate, and put those more simple parts of matter into motion.

Hale.

The means of immediate union of these intelligible objects to the understanding, are sometimes

divine and supernatural, as by immediate irradiation or revelation.

Id.

The principal affection is its translucency: the irradiancy and sparkling, found in many gems, is not discoverable in this. Browne's Vulgar Errors.

It is not a converting but a crowning grace; such an one as irradiates and puts a circle of glory about the head of him upon whom it descends.

South.

No weeping orphan saw his father's store.

Our shrines irradiate, or imblaze the floor. Pope.

IRRATIONAL, *adj.* Lat. in and ratio.

IRRATIONALITY, *n. s.* Void of reason or un-

IRRATIONALITY, *adv.* Understanding; absurd; contrary to reason.

Since the brain is only a transmittent, and that humours oft are precipitated to the lungs before they arrive to the brain, no kind of benefit can be effected from so irrational an application.

Harvey on Consumptions.

Thus began

Outrage from lifeless things; but discord first,

Daughter of sin, among the irrational

Death introduced.

Milton's Paradise Lost.

IRRAWADDY, or **IRAVATI**, a large river in the Burmhan empire, having its source in the eastern part of Thibet. It is not navigable even for flat-bottomed boats further than the mountains which divide Ava from China. It enters the Burmhan dominions in or about 25° N. lat. At old Ava, in the rainy season, it may be a mile broad, and very deep; but during the remainder of the year it is not more than half a mile in breadth and eight feet deep. In lat. 47° 50' it divides into two branches; one of which, running to the south-west, passes the town of Persain or Bassien; the other, running to the south-east, passes Rangoon; but these branches again subdivide into many streams which are met by the tide. The intermediate space is formed into a Delta, covered with trees and long grass, and chiefly inhabited by buffaloes, deer, and tigers. The teak timber does not grow on the banks of this river, but in the mountains, from thirty to sixty miles inland. During the rainy season it is floated down the rivulets, then formed into rafts, and thus conveyed to Rangoon. This river formed the principal theatre for naval hostilities during the late Burmhan war. It may be estimated at 600 miles in length, and is of incalculable advantage to the country.

IRRECLAIMABLE, *adj.* In, re, and claimable. Not to be reclaimed; not to be changed to the better; shameless; incorrigible.

As for obstinate, irreclaimable, professed enemies, we must expect their calumnies will continue.

Addison's Freeholder.

IRRECONCILABLE, *adj.* Lat in and **IRRECONCILABleness**, *n. s.* reconcilior. Not

IRRECONCILABLY, *adv.* to be appeased

IRRECONCILED, *adj.* by kindness; not to be set at one again; not to be made consistent: irreconciled, still at variance; not atoned; which two words appear exactly to express the meaning of irreconciled.

A servant dies in many irreconciled iniquities.

Shakspeare.

Wage eternal war.

Irreconcilable to our grand foe.

Milton.

A weak unequal faction may animate a government; but when it grows equal in strength, and ir-

reconcileable by animosity, it cannot end without some crisis. *Temple.*

There are no factions, though *irreconcileable* to one another, that are not united in their affection to you. *Dryden.*

Since the sense I oppose is attended with such gross *irreconcileable* absurdities, I presume I need not offer any thing farther in support of the one, or in disproof of the other. *Rogers.*

This essential power of gravitation or attraction is *irreconcileable* with the Atheist's own doctrine of a chaos. *Bentley.*

IRRECOVERABLE, *adj.* Lat. *in* and *re recuperare*. Not to be regained, restored, or remedied; hopeless, and helpless, as to condition.

The *irrecoverable* loss of so many lives of principal value. *Hooker.*

O dark, dark, dark amid' the blaze of noon :

Irrecoverably dark, total eclipse,

Without all hope of day. *Milton's Agonistes.*

It concerns every man, that world not trifle away his soul, and fool himself into *irrecoverable* misery, with the greatest seriousness to enquire. *Tillotson.*

The credit of the Exchequer is *irrecoverable* lost by the last breach with the bankers. *Temple.*

Time, in a natural sense, is *irrecoverable*: the moment just fled by us, it is impossible to recall. *Rogers.*

He loathes the world,—or with reflection sad Concludes it *irrecoverably* mad. *Canning's New Morality.*

IRREDUCIBLE, *adj.* In and reducible Lat. *in* and *re duco*. Not to be brought or reduced.

These observations seem to argue the corpuscles of air to be *irreducible* into water. *Boyle.*

IRREFRAGABILITY, *n. s.* Lat. *in*, *re*, *frango*. Not *irrefragable*, *adj.* To be confuted or overthrown by argument.

Strong and *irrefragable* the evidences of Christianity must be: they who resisted them would resist every thing. *Atterbury's Sermons.*

That they denied a future state is evident from St. Paul's reasonings, which are of no force but only on that supposition, as Origen largely and *irrefragably* proves. *Atterbury.*

The danger of introducing unexperienced men was urged as an *irrefragable* reason for working by slow degrees. *Swift.*

IRREGULAR, *adj.* Lat. *in* and *regula*. IRREGULARITY, *n. s.* Deviating from rule, IRREGULARLY, *adv.* Custom, or nature; impudent; irregularly, *adv.* Methodical: a soft word for vice: irregular, to make irregular or disorderly: verbs are called irregular which deviate from general rules.

This motion seems excentrique and *irregular*, yet not well to be resisted or quieted. *King Charles.*

The numbers of pindariques are wild and *irregular*, and sometimes seem harsh and uncouth. *Cowley.*

Regular

Then most, when most *irregular* they seem.

Milton.

This *irregularity* of its unruly and tumultuous motion might afford a beginning unto the common opinion. *Browne.*

Its fluctuations are but motions subservient, which winds, shelves, and every interjacency *irregularizes*.

Id.

Your's is a soul *irregularly* great,
Which, wanting temper, yet abounds with heat. *Dryden.*

It may give some light to those whose concerns for their little ones makes them so *irregularly* bold as to consult their own reason in the education of their children, rather than to rely upon old custom. *Locke.*

Religion is somewhat less in danger of corruption, while the sinner acknowledges the obligations of his duty, and is ashamed of his *irregularities*. *Rogers.*

O'er the *irregulars* in lust or gore,
Who do not give professional attendance.

Byron. Don Juan.

IRRELATIVE, *adj.* Lat. *in* and *relativus*. Having no reference to any thing; single; unconnected.

Separated by the voice of God, things in their species came out in uncommunicated varieties, and *irrelative* seminalities. *Browne's Vulgar Errors.*

IRRELIGIOUS, *adj.* Fr. *irreligion*; Lat. *irreligio*, *n. s.* in and *religio*. Not *irreligiously*, *adv.* Acknowledging dependence upon, and obligation to, the deity; impious; profane; contempt of religion; acting in opposition to the dictates of piety; irreligiously, carelessly with respect to God; irreverently in holy services.

Religion's blot, but *irreligion's* paint;
A saint abroad, at home a fiend.

Fletcher's Purple Island.

And the priest
Was not behind, but ever at my ear,
Preaching how meritorious with the gods
It would be to ensnare an *irreligious*
Dishonour of Dagon. *Milton. Sam's a Agnostic.*

The weapons with which I combat *irreligion* are already consigned. *Dryden.*

Shame and reproach is generally the portion of the impious and *irreligious*. *South.*

We behold every instance of prophaneness and *irreligion*, not only committed, but defended and glorified in. *Rogers.*

Might not the queen's domesticks be obliged to avoid swearing and *irreligious* profane discourse? *Swift.*

IRREM EABLE, *adj.* Latin, *irrememabilis*. Admitting no return.

The keeper charmed, the chief without delay
Passed on, and took the *irremovable* way. *Dryden.*

IRREMEDIABLE, *adj.* Fr. *irremediable*; IRREMEDIABLY, *adv.* Lat. *in* and *remedium*. Admitting no cure; not to be remedied.

They content themselves with that which was the *irremediable* error of former times, or the necessity of the present hath cast upon them. *Hooker.*

It happens to us *irremediably* and inevitably, that we may perceive these accidents are not the fruits of our labour, but gifts of God. *Taylor's Worthy Communicant.*

Whatever he consults you about, unless it lead to some fatal and *irremediable* mischief, be sure you ad- vice only as a friend. *Locke.*

IRREMIS'BLE, *adj.* Lat. *in* and *remit-* IRREMIS'BLENESS, *n. s.* to. Not to be par- doned; beyond the reach of forgiveness.

Thence arises the aggravation and *irremissibleness* of the sin. *Hammond on Fundamentals.*

IRREMOVABLE, *adj.* Lat. *in* and *remov-*
eo. Not to be removed; not to be changed.

He is *irremovable*,
Resolved for flight. *Shakspeare. Winter's Tale.*

IRRENOWED, *adj.* Fr. *in* and *renommé*;
Lat. *in, re, nomen.* Void of honor. We now
say unrenowned.

For all he did was to deceive good knights,
And draw them from pursuit of praise and fame
To sluggish sloth and sensual delights,
And end their days with *irrenowned* shame. *Eaerie Queen.*

IRREP'ARABLE, *adj.* Lat. *in* and *repara-*.
IRREP'ARABLY, *adv.* Not to be recovered
or repaired: without amends or reparation.

Irreparable is the loss, and Patience says it is not
past her cure. *Shakspeare. Tempest.*
The cutting off that time, industry and gifts, where-
by she should be nourished, were *irreparably* injuri-
ous to her. *Decay of Piety.*

Toiled with loss *irreparable*. *Milton.*

It is an *irreparable* injustice we are guilty of, when
we are prejudiced by the looks of those whom we do
not know. *Addison.*

IRREPLEV'IALE, *adj.* Lat. *in* and *repleo-*.
Not to be redeemed: a law term.

IRREPREHEN'SIBLE, *adj.* Lat. *in* and
IRREPREHEN'SIBLY, *adv.* reprendo.
Not to be censured: without blame.

IRREPRESENTABLE, *adj.* Lat. *in, re,*
presens. Not to be figured by any representation.

God's *irrepresentable* nature doth hold against mak-
ing images of God. *Stillingfleet.*

IRREPROACH'IALE, *adj.* Fr. *reprocher*;
IRREPROACH'ABLY, *adv.* Lat. *in* and *op-*
probrium. Free from reproach: without censure.

He was a serious sincere Christian, of an innocent,
irreproachable, nay, exemplary life. *Attberry.*

Their prayer may be, that they may raise up and
breed an *irreproachable* a young family as their parents
have done. *Pope.*

IRREPROVE'IALE, *adj.* Lat. *in* and *re-*
proba. Not to be blamed; irreproachable.

IRRESISTIBILITY, *n.s.* Lat. *in* and *re-*

IRRESIST'BLE, *adj.* sista. Power

IRRESIST'IBLY, *adv.* above effectual

IRRESIST'LESS, *adj.* opposition: su-

perior to opposition: *irresistless*, a bad word,

compounded of two negatives, meaning *resistless*.

Fear doth grow from an apprehension of the Deity,
indued with *irresistible* power to hurt; and is of all
affections, anger excepted, the unaptest to admit con-
ference with reason. *Hooker.*

The doctrine of *irresistibility* of grace, if it be ac-
knowledged, there is nothing to be affixt to gratitude.

Hammond.

In mighty quadrate joined *Milton.*

Of union *irresistible.* *Milton.*

Those radiant eyes, whose *irresistible* flame
Strikes Envy dumb, and keeps Sedition tame,

They can to gazing multitudes give law,

Convert the factious, and the rebel awe. *Glanville.*

God *irresistibly* sways all manner of events on earth.

Dryden.

There can be no difference in the subjects, where
the application is almighty and *irresistible*, as in cre-
ation. *Rogers.*

Fond of pleasing and endearing ourselves to those
we esteem, we are *irresistibly* led into the same incli-
nations and aversions with them. *Id.*

Won by the charm
Of goodness *irresistible*, and all
In sweet disorder lost, she blushed consent. *Thomson.*

IRRESOLUBLE, *adj.* Lat. *in* and *resolu-*
IRRESOLU'ENESS, *n.s.* vo; Fr. *irresolu-*

IRRESOL'EDLY, *adv.* These words have

IRRESOL'UTE, *adj.* opposite meanings:

IRRESOL'UTELY, *adv.* the two first imply

IRRESOL'UTION, *n.s.* a state not to be

broken: or dissolved, the others signify inconstan-

tancy; want of courage or determination; with-

out firmness of mind or determined purpose.

Were he evil-used, he would outgo
His father, by as much as a performance

Does an *irresolute* purpose. *Shakspeare. Henry VIII.*

It hath most force upon things that have the lightest motion, and therefore upon the spirits of men, and in them upon such affections as move lightest; as upon men in fear, or men in *irresolution*. *Bacon's Natural History.*

Divers of my friends have thought it strange to
hear me speak so *irresolvedly* concerning those things,
which some take to be the elements, and others the
principles of all mixed bodies. *Boyle.*

In factitious sal ammoniacæ the common and urinous
salts are so well mingled, that both in the open fire
and in subliming vessels they rise together as one
salt, which seems in such vessels *irresoluble* by fire
alone. *Id.*

Quercetanus has this confession of the *irresolubility*
of diamonds. *Id.*

So Myrrha's mind, impelled on either side,
Takes every bent but cannot long abide;
Irresolute on which she should rely,
At last, unfixed in all, is only fixed to die. *Dryden.*

Irresolution on the schemes of life, which offer
themselves to our choice, and inconstancy in pur-
suing them, are the greatest causes of all our unhappy-
ness. *Addison.*

IRRESP'ECTIVE, *adj.* Lat. *in respectu-*

IRRESP'ECTIVELY, *adv.* Having no regard

to circumstances. *Id.*

He is convinced, that all the promises belong to
him absolutely and *irrespectively*. *Hammond.*

Thus did the Jew, by persuading himself of his
particular *irrespective* election, think it safe to run
into all sins! *Id.*

According to this doctrine, it must be resolved
wholly into the absolute *irrespective* will of God. *Rogers.*

IRRETIRIEV'IALE, *adj.* Fr. *in retrouer*.

IRRETIRIEV'ABLY, *adv.* Not to be re-
gained or recovered.

It would not defray the charge of the extraction,
and therefore must have been all *irretirievably* lost,
and useless to mankind, was it not by this means
collected. *Woodward.*

IRREV'ERENCE, *n.s.* Lat. *in revercor.*

IRREV'ERENT, *adj.* Want of due ve-

IRREV'ERENTLY, *adv.* neration or respect:
state of being disregarded: these words are ge-

nerally applied to the demeanor as *irreverent*; or
language or manner, as not yielding due homage.

Irreverence is, whan man doth not honour ther as
him ought to do and wairtheth to be reverence. *Chaucer. The Persones Tale.*

As our fear excludeth not that boldness which be-
cometh saints, so, if our familiarity with God do not
savour of fear, it draweth too near that *irreverent*
confidence wherewith true humility can never stand.

Hooper.

Having seen our scandalous irreverence towards God's worship in general, 'tis easy to make application to the several parts of it. *Decay of Piety.*

The concurrence of the house of peers in that fury can be imputed to no one thing more than to the *irreverence* and scorn the judges were justly in, who had been always looked upon there as the oracles of the law.

Clarendon.

Witness the *irreverent* son
Of him who built the ark ; who, for the shame
Done to his father, heard his heavy curse,
Servant of servants, on his vicious race.

Wilton.

If an *irreverent* expression or thought too wanton
are crept into my verses, through my inadvertency,
let their authors be answerable for them.

Dryden.

They were a sort of attributes, with which it was
a matter of religion to salute them on all occasions,
and which it was an *irreverence* to omit.

Pope.

IRREVERISIBLE, adj. { Lat. *in reverto*.

IRREVERISIBLY, adv. { Not to be recalled
or changed.

The title of fundamentals, being ordinarily confined to the doctrines of faith, hath occasioned that great scandal in the church, at which so many myriads of soliditians have stumbled, and fallen *irreversibly*, by conceiving heaven a reward of true opinions.

Hammond on Fundamentals.

The sins of his chamber and his closet shall be produced before men and angels, and an eternal *irreversible* sentence be pronounced.

Rogers.

IRREVOCABLE, adj. { Fr. *irrevocable*;

IRREVOCABLY, adv. { Lat. *in revoco*. Not to be recalled ; not to be brought back ; not to be reversed.

But sith that he his gone *irrevocable*,
Please it you, Ladie, to us to aread
What cause could make him so dishonourable
To drive you on foot, unfi to tred,
And lackey by him, gaint all woman head.

Spenser's Faerie Queene.

Give thy hand to Warwick,
And, with thy hand, thy faith *irrevocable*,
That only Warwick's daughter shall be thine.

Shakspeare.

Firm and *irrevocable* is my doom.

Id. As You Like It.

That which is past is gone and *irrevocable*, therefore they do but trifl, that labour in past matters.

Bacon's Essays

The second, both for pycy renowned,
And puissant deeds, a promise shall receive
Irrevocable, that his regal throne
For ever shall endure.

Milton's Paradise Lost.

If air were kept out four or five minutes, the fire would be *irrevocably* extinguished.

Boyle.

By her *irrevocable* fate,
War shall the country waste, and change the state,

Dryden.

IRRIGATE, v. a. { Lat. *irrigo*. To wet ;
IRRIGATION, n. s. { to moisten with water ;
IRRIG'OUS, adj. { the act of watering or
moistening. *Irrigous*, watery ; dewy ; moist.

Help of ground is by watering and *irrigation*.

Bacon.

The flowery lap
Of some *irrigous* valley spread her store
Flowers of all hue, and without thorns the rose.

Milton.

The heart, which is one of the principal parts of the body, doth continually *irrigate*, nourish, keep hot, and supple all the members.

Ray on the Creation.

Rash Elepenor

Dried an immeasurable bowl, and thought
To exhale his surfeit by *irriguous* sleep :

Imprudent ! him death's iron sleep opprest.

Phillips.

IRRIGATION, as a mode of agriculture, has been slightly adverted to under the article of the latter name. See AGRICULTURE, Index. Its early use, its great importance in the east, and the strong partiality of some modern European agriculturists, will justify some further observations upon the subject.

The Romans applied watering on a large scale, both to arable and grass lands, particularly the latter. 'As much as in your power,' says Cato, 'make watered meadows.' Virgil (Georg. 1, c. 104—118) advises to

Call the floods from high, to rush amain
With pregnant streams, to swell the turning grain.
Then, when the fiery suns too fiercely play,
And shrivelled herbs on withering stems decay,
The wary ploughman on the mountain's brow
Undams his watery stores—huge torrents flow,
And rattling down the rocks large moisture yield,
Tempering the thirsty fever of the field.

'Neither a low field,' says Columella, 'with hollows, nor a field broken with steep rising grounds, is proper for water meadows. The first because it contains too long the water collected in the hollows ; the last, because it makes the water to run too quickly over it. A field, however, that has a moderate descent, may be made a meadow, whether it is rich or poor, if so situated as to be watered. But the best situation is, where the surface is smooth, and the descent so gentle as to prevent either showers, or the rivers that overflow it, from remaining long ; and, on the other hand, to allow the water that comes over it gently to glide off. Therefore, if, in any part of a field intended for a meadow, a pool of water should stand, it must be let off by drains ; for the loss is equal, either from too much water or too little grass.' (Col. lib. ii. cap. 17). Watering, Pliny states, was commenced immediately after the equinox, and restrained when the grass sent up flower stalks ; it was recommenced in mowing grounds, after the hay season, and in pasture lands at intervals.

In Hindostan to this day the operation of conveying water to and from the fields is one of the most expensive and troublesome in their agricultural system ; particularly in the higher districts. In the Monghere district of Bengal a deep well is dug in the highest part of the field, which, being ploughed, is divided into little square plots, resembling the chequers of a chess board. Each square is surrounded with a border, four inches high, capable of containing water : while, between the chequers thus constructed, small dykes are formed for conveying a rivulet over the whole field. As soon as the water has stood a sufficient time in one square for it to imbibe moisture, it is let off into the next by opening a small outlet through the dyke. Thus one square after another is irrigated, till the whole field is gone over. The water is raised in leather bags by two bullocks, yoked to a rope ; the cattle retiring from the well, and returning

to its mouth, according as the bag is meant to be raised, or to descend. The rope is kept perpendicular in the pit by a pulley, over which it runs; and, from the mouth of the well thus placed, the rivulets are formed. In Patna the leatheren bags are raised by long bamboo levers, as buckets are in this country.

Dr. Davy gives an interesting account of the prevalence of this practice at Ceylon. The cultivation in the interior of that country, he says, is of two kinds, the dry and the wet. The former consists in cutting down and grubbing up the wood on the sides of hills, where particular varieties of rice and Indian corn are afterwards sown: the latter, by far the most general mode, is carried on wherever water can be obtained for irrigation. 'Most of the operations in the cultivation of *paddy*', he states, 'are connected with or have some relation to the element on which its success depends. The farmer commences with repairing the banks of the paddy-field. He then admits water in sufficient quantity to be an inch or two deep over the whole surface. After the ground has been well macerated and softened, he ploughs it, still under water. After farther maceration it is ploughed again, or merely trampled over by buffaloes, till reduced to the state of mud. Its surface is now levelled and smoothed. The water is drawn off, and the paddy, having been previously steeped in water till it has begun to germinate, is sown with the hand, and is scattered as equally as possible over the moist surface of mud. When the seed has taken root, and before the mud has had time to dry, the openings through which the water was drawn off are closed, and the field is again inundated. When the paddy is two or three inches high, it is weeded; and, where the seed has failed, the vacant spots are planted from those parts which are too thick and require thinning. The irrigation is continued till the paddy is nearly full-grown and about to ripen, when the openings are made in the banks and the field is drained. As soon as ripe, the paddy is cut with reaping-hooks, and immediately carried to the threshing-floor, where the grain is trampled out by buffaloes. From the moment the seed is sown, till the period of harvest, the paddy-field, like the *chenas*, requires constant nightly watching to protect it from the depredations of its wild enemies. In the low country, where the cultivation of paddy is in a great measure dependent on the rainy season and on artificial reservoirs for a farther supply of water, only one crop is procured annually; but amongst the mountains, in situations where perpetual irrigation is at command, the seasons are less concerned; the farmer can sow when he pleases, and from good ground annually obtain two, and I have heard even three crops. The hilly and mountainous districts, in consequence of being well supplied with water, are thus particularly favorable for the cultivation of this important grain: and it is a most fortunate circumstance that they are so; otherwise the coolest, most salubrious, and most beautiful parts of the interior would, instead of being cultivated to a certain extent, be quite neglected and deserted. In the low country the paddy-fields are generally of a

large size, and apparently quite flat; and every crop being in the same stage of vegetation, or nearly so, the whole exhibits very little variety of surface. Amongst the mountains it is quite different;—paddy-fields there are a succession of terraces or flights of steps; and in each field the crop may be in different stages of growth,—in some just vegetating, in others full-grown, ripening, or ripe; there at the same time you may see the laborers at all their different operations,—banking, ploughing, sowing, weeding, reaping, and treading out the grain. I do not know any scene more interesting than a highland valley thus cultivated, or more beautiful, when (as it generally is) it is surrounded by the bold, wild, and frequently savage scenery of untamed nature. In the low lands the labor and skill required to cultivate paddy are less than are necessary in the high lands. In cutting terraces in the sides of hills, the perseverance and industry of the mountaineer are often in a striking manner displayed. Many of his beds are actually walled up, and many of them are not four feet wide, and though generally long, occasionally they are so short, from the nature of the ground, as well as narrow, that one would not suppose they were worth the labor of keeping in repair and much less of making. In bringing water to his fields, and insuring them a constant supply, the judgment and skill of the cultivator are most exercised. Sometimes it is conducted two or three miles along the side of a hill, and occasionally it is even carried from one side of a mountain to another by means of wooden pipes.'

'In surface irrigation,' says Mr. Loudon, 'the water is conveyed in a system of open channels, which require to be most numerous in such grounds as are under drilled annual crops, and least so in such as are sown in breadths, beds, or ridges, under perennial crops. This mode of watering has existed from time immemorial. The children of Israel are represented as sowing their seed and watering it with their foot; that is, as Calmet explains it, raising the water from the Nile by a machine worked by the feet, from which it was conducted in such channels as we have been describing. It is general in the south of France and Italy; but less required in Britain.'

'Subterraneous irrigation may be effected by a system of drains or covered gutters in the sub-soil, which, proceeding from a main conduit, or other supply, can be charged with water at pleasure. For grounds under the culture of annual plants, this mode would be mere convenient, and for all others more economical as to the use of water, than surface irrigation. Where the under stratum is gravelly, and rests on a retentive stratum, this mode of watering may take place without drains, as it may also on perfectly flat lands, by filling to the brim, and keeping full for several days, surrounding trenches; but the beds or fields between the trenches must not be of great extent. This practice is used in Lombardy on the alluvial lands near the embouchures of the Po. In Lincolnshire the same mode is practised by shutting up the flood gates of the mouths of the great drains in the dry seasons, and thus damming up the water through all the ramifications of the drainage from the sea

to their source. This was first suggested by G. Rennie and Sir Joseph Banks, after the drainage round Boston, completed about 1810. A similar plan, on a smaller scale, had been practised in Scotland, where deep mosses had been drained and cultivated on the surface, but where, in summer, vegetation failed from deficiency of moisture. It was first adopted by J. Smith (see *Essay on the Improvement of Peat-Moss*, 1795), on a farm in Ayrshire, and has subsequently been brought into notice by J. Johnston, the first delineator and professor of Elkinton's system of draining.

'Irrigation with a view to conveying additions to the soil (or for manuring it in fact), has long been practised, and is an evident imitation of the overflowing of alluvial lands, whether in meadow or aration. In the former case it is called irrigation or flooding, and in the latter warping. Warping is used chiefly as a mode of enriching the soil by an increase of the alluvial depositions, or warp of rivers, during winter, where the surface is not under crop, and is common on the banks of the Ouse.'

'Subterraneous irrigation appears to have been first practised in Lombardy, and first treated of by professor Thouin. (*Annales de Musé*, &c.) It consists in saturating a soil with water from below, instead of from the surface, and is effected by surrounding a piece of ground by an open drain or main, and intersecting it by covered drains communicating with this main. If the field is on a level, as in most cases where the practice is adopted in Lombardy, all that is necessary is to fill the main and keep it full till the lands have been sufficiently soaked. But, if it lies on a slope, then the lower ends of the drains must be closely stopped, and the water admitted only into the main on the upper side: this main must be kept full till the land is soaked, when the mouths of the lower drains may be opened to carry off the superfluous water. The practice is applicable either to pasture or arable lands. In Britain, subterraneous irrigation has been applied in a very simple manner to drained bogs and morasses, and to fen lands. All that is necessary is to build a sluice in the lower part of the main drain where it quits the drained grounds, and in dry weather to shut down this sluice, so as to dam up the water and throw it back into all the minor open drains, and also the covered drains. This plan has been adopted with success, first, as we believe, by Smith, of Swineridge Muir, in Ayrshire, and subsequently by Johnson, in the case of several bog drainages executed by him in Scotland. It is also practised in Lincolnshire, where it was introduced by the advice of the late engineer Rennie, after the completion of a public drainage at Boston.'

'In general in nature the operation of water,' says Sir H. Davy, 'is to bring earthy substances into an extreme state of division. But, in the artificial watering of meadows, the beneficial effects depend upon many different causes, some chemical, some mechanical. Water is absolutely essential to vegetation; and when land has been covered by water in the winter, or in the beginning of spring, the moisture that has penetrated deep into the soil, and even the subsoil, becomes

a source of nourishment to the roots of the plants in the summer, and prevents those bad effects that often happen in lands in their natural state, from a long continuance of dry weather. When the water used in irrigation has flowed over a calcareous country, it is generally found impregnated with carbonate of lime; and in this state it tends, in many instances, to ameliorate the soil. Common river water also generally contains a certain portion of organisable matter, which is much greater after rains than at other times; or which exists in the largest quantity when the stream rises in a cultivated country. Even in cases when the water used for flooding is pure, and free from animal or vegetable substances, it acts by causing a more equable diffusion of nutritive matter existing in the land; and in very cold seasons it preserves the tender roots and leaves of the grass from being affected by frost. Water is of greater specific gravity at 42° Fahrenheit than at 32°, the freezing point; and hence, in a meadow irrigated in winter, the water immediately in contact with the grass is rarely below 40°, a degree of temperature not at all prejudicial to the living organs of plants. In 1804, in the month of March, the temperature in a water meadow near Hungerford was examined by a very delicate thermometer. The temperature of the air at seven in the morning was 29°. The water was frozen above the grass. The temperature of the soil below the water, in which the roots of the grass were fixed, was 43°. Water may also operate usefully in warm seasons by moderating temperature, and thus retarding the over-rapid progress of vegetation. The consequence of this retardation will be greater magnitude and improved texture of the grosser parts of plants, a more perfect and ample development of their finer parts, and, above all, an increase in the size of their fruits and seeds. We apprehend this to be one of the principal uses of flooding rice-grounds in the east; for it is ascertained that the rice-plant will perfect its seeds in Europe, and even in this country, without any water beyond what is furnished by the weather, and the natural moisture of a well constituted soil. It is a general principle, that waters containing ferruginous impregnations, though possessed of fertilising effects when applied to a calcareous soil, are injurious on soils that do not effervesce with acids; and that calcareous waters, which are known by the earthy deposit they afford when boiled, are of most use on siliceous soils, or other soils containing no remarkable quantity of carbonate of lime.'

IRRISTION, *n. s.* Fr. *irrisio*; Lat. *irrisio*. The act of laughing at another.

Ham, by his indiscreet and unnatural *irrision*, and exposing of his father, incurs his curse. *Woodward.*

IR'RITATE, *v. a.* Fr. *irriter*; Lat. *irritare*.

IRRIGATION, *n. s.* To provoke, tease, or exasperate; to fret, stimulate, or vesicate: the original meaning appears to be, to rub against. Irritation, provocation; stimulation; vesication.

Air, if very cold, *irritateth* the flame, and maketh it burn more fiercely, as fire scorcheth in frosty weather. *Bacon.*

When they are collected, the heat becometh more violent and *irritate*, and thereby expelleth sweat. *Bacon's Natural History.*

Violent affections and *irritations* of the nerves, in any part of the body are caused by something acrimonious.

Arbutinot.

Roused

By dash of clouds, or *irritating* war
Of fighting winds, while all is calm below,
They furious spring. *Thomson's Summer.*

IRRITABILITY, in anatomy and medicine, a term first invented by Glisson, and adopted by Dr. Haller, to denote an essential property of all animal bodies, which, he says, exists independently of and in contradistinction to sensibility. This ingenious author calls that part of the human body irritable which becomes shorter upon being touched; very irritable, if it contracts upon a slight touch; and the contrary, if by a violent touch it contracts but little. He calls that a sensible part of the human body which upon being touched transmits the impression of it to the soul; and in brutes, he calls those parts sensible, the irritation of which occasions evident signs of pain and disquiet in the animal. On the contrary, he calls that insensible which being burnt, torn, pricked, or cut till it is quite destroyed, occasions no sign of pain nor convulsion, nor any sort of change in the situation of the body. From the result of many cruel experiments he concludes, that the epidermis is insensible; that the skin is sensible in a greater degree than any other part of the body; that the fat and cellular membrane are insensible; and the muscular flesh sensible, the sensibility of which he ascribes rather to the nerves than to the flesh itself. The tendons, he says, having no nerves distributed to them, are insensible. The ligaments and capsules of the articulations are also concluded to be insensible; whence Dr. Haller infers, that the sharp pains of the gout are not seated in the capsule of the joint, but in the skin, and in the nerves which creep upon its external surface. The bones are all insensible, says Dr. Haller, except the teeth; and likewise the marrow. The arteries and veins are held susceptible of little or no sensation, except the carotid, the lingual, temporal, pharyngal, labial, thyroidal, and the aorta near the heart; the sensibility of which is ascribed to the nerves that accompany them. Sensibility is allowed to the internal membranes of the stomach, intestines, bladder, ureters, vagina, and womb, on account of their being of the same nature with the skin: the heart is also admitted to be sensible; but the lungs, liver, spleen, and kidneys, are possessed of a very imperfect, if any sensation. The glands, having few nerves, are endowed with only an obtuse sensation. Some sensibility is allowed to the tunica choroidis and the iris, though in a less degree than the retina; but none to the cornea. Dr. Haller concludes, in general, that the nerves alone are sensible of themselves; and that, in proportion to the number of nerves apparently distributed to particular parts, such parts possess a greater or less degree of sensibility. Irritability, he says, is so different from sensibility, that the most irritable parts are not at all sensible, and vice versa. He alleges facts to prove this position, and also to demonstrate, that irritability does not depend upon the nerves, which are not irritable, but upon the original formation of the

parts which are susceptible of it. Irritability, he says, is not proportioned to sensibility; in proof of which, he observes, that the intestines, though rather less sensible than the stomach, are more irritable; and that the heart is very irritable, though it has but a small degree of sensation. Irritability, according to Dr. Haller, is the distinguishing characteristic between the muscular and cellular fibres; whence he determines the ligaments, periosteum, meninges of the brain, and all the membranes composed of the cellular substance, to be void of irritability. The tendons are unirritable; and, though he does not absolutely deny irritability to the arteries, yet his experiments on the aorta produced no contraction. The veins and excretory ducts are in a small degree irritable, and the gall bladder, the ductus chole-dochus, the ureters and urethra, are only affected by a very acid corrosive; but the lacteal vessels are considerably irritable. The glands and mucous sinuses, the uterus in quadrupeds, the humatrix, and the genitals, are all irritable; as are also the muscles, particularly the diaphragm. The oesophagus, stomach, and intestines, are irritable; but of all the animal organs the heart is endued with the greatest irritability. In general, there is nothing irritable in the animal body but the muscular fibres; and the vital parts are the most irritable. This power of motion, arising from irritations, is supposed to be different from all other properties of bodies, and probably resides in the glutinous mucus of the muscular fibres, altogether independent of the influence of the soul. The irritability of the muscles is said to be destroyed by drying of the fibres, congealing of the fat, and more especially by the use of opium in living animals. The physiological system, of which an abstract has been now given, has been adopted and confirmed by Castell and Zimmerman, and also by Dr. Brocklesby, who suggests, that irritability, as distinguished from sensibility, may depend upon a series of nerves different from such as serve either for voluntary motion or sensation. This doctrine, however, has been controverted by M. le Cat; by Dr. Whytt in his *Physiological Essays*; and by Dr. Monro. See ANATOMY.

IRROGATIO, a law term amongst the Romans, signifying the instrument, in which were put down the punishments which the law provided against such offences as any person was accused of by a magistrate before the people. These punishments were first proclaimed *viva voce* by the accuser, and this was called *Inquisitio*: the same being immediately after expressed in writing, took the name of *Rogatio*, in respect of the people, who were to be consulted or asked about it; and was called *Irragatio*, in respect of the criminal, as it imported the mullet of punishment assigned him by the accuser.

IRROMANGO, or ERRAMANGO, one of the New Hebrides, is about twenty-four or twenty-five leagues in circuit; the inhabitants are middle-sized, and have a good shape and tolerable features. Their color is very dark; and they paint their faces, some of them with black, and others with red pigment: their hair is curly,

crisp, and somewhat woolly. Few women were seen, and those very ugly: they wore a petticoat made of the leaves of some plant. The men were quite naked, excepting a belt tied about the waist, and a piece of cloth, or a leaf, used for a wrapper. They live in houses covered with thatch: and their plantations are laid out by line, and fenced round. An unlucky scuffle between the British sailors and these people, in which four of the latter were desperately wounded, prevented captain Cook from procuring any particular information concerning the produce, &c. See *Cook*. The middle of this island lies in long. 169° 19' E., lat. 18° 54' S.

IRRUPTION, *n. s.* Fr. *irruption*; Lat. *irruption*. The act of forcing an entrance; the burst of invaders into any place.

A full and sudden *irruption* of thick melancholick blood into the heart puts a stop to its pulsation.
Harvey.

I refrain, too suddenly,

To utter what will come at last too soon;
Lest evil tidings, with too rude *irruption*,
Hitting thy aged ear, should pierce too deep.

Milton.

There are frequent inundations made in maritime countries by the *irruption* of the sea. *Burnet.*

Notwithstanding the *irruptions* of the barbarous nations, one can scarce imagine how so plentiful a soil should become so miserably unpeopled.

Addison.

IRTIS, or **IRTSCH**, a large river of Asia, in Siberia, which rises among the hills of the country of the Kalmucks, and, running north-east falls into the Oby near Tobolsk. It abounds with fish, particularly sturgeon, and delicate salmon.

IRVINE, a river of Scotland in Ayrshire, which rises in the parish of Louden on the east of Louden Hill, and passing by Derval, Newmills, Glaston, and Riccarton, falls into the Frith of Clyde below Irvine.

IRVINE, or **IRWINE**, a sea-port and royal burgh, in Ayrshire, and bailiwick of Cunningham, seated at the mouth of the river of the same name. This port had formerly several busineses in the herring fishery. At present the inhabitants employ a number of brigs in the coal trade to Ireland. Irvine has a dock-yard for ship-building, a tan-work, ropery, and bleach-field. Its commerce had greatly increased before the war. About 24,000 tons of coals are exported annually; besides great quantities of carpets, muslins, linens, silk, lawns, gauzes, &c. The imports are hemp, iron, wood, hides, and corn. Irvine lies fifteen miles east of the isle of Arran, and sixty west by south of Edinburgh.

IS. Sax. *ir.* See *To BE*. The third person singular of *to be*: I am, thou art, he *is*: it is sometimes expressed thus *'s*.

Be not afraid of them, for they cannot do evil; neither is it in them to do good. *Jer. x. 5.*

He that *is* of God, heareth God's words.

John viii. 47.

Here *is* the Queen of Faerie,

With harpe, and pipe, and sinphonie,
Dwelling in this place!

Chaucer. The Romaunt of Sire Thopas.

Yon *is* (thought I) some sprite or some else,
His sotel image *is* so curious.

Id. The Court of Love.

Such is the state of men! thus enter we
Into this life with woe and end in misere.

Spenser. Faerie Queene.

There's some among you have beheld me fighting,
Shakspeare.

My thought, whose murther yet *is* but fantastical,
Shakes so my single state of man, that function
Is smothered in surmise; and nothing *is*,
But what *is not*.

Id. Macbeth.

That our condition is the worst
And with such misfortunes curst
As all comparison defy
Was late the universal cry. *Beattie.*

And should the ceaseless vultures cease to prey
On self condemning bosoms, it were here,
Where Nature, nor too sombre or too gay,
Wild but not rude, awful yet not austere,
Is to the mellow Earth as Autumn to the year.

Byron. Childe Harold.

ISAAC, in sacred history, the only son of Abraham and Sarah; the progenitor of the Edomites by his eldest son, and of the Israelites by his youngest. His history is recorded in Genesis xxi.—xxx. He died A. A. C. 1716, aged 180.

ISABELLA, Point, a port and cape of Hispaniola, on the north side of the island, the place where Columbus established the first settlement, which he named after his patroness queen Isabella. It is about eighty-seven miles east by north of Cape François. Lat. 19° 53' 10" N.

ISEUS, a Greek orator born at Colchis, in Syria, was the disciple of Lysias, and the master of Demosthenes; and taught eloquence at Athens, about 344 A. A. C. Sixty-four orations are attributed to him; but he composed no more than fifty, of which only ten are now remaining. He was the first who applied eloquence to politics, in which he was followed by his disciple Demosthenes.

ISEUS was also the name of another celebrated orator, who lived at Rome in the time of Pliny the Younger, about A. D. 97.

ISAIAH, the first of the four greater prophets, was of the royal blood, his father Amos being brother to Uzziah king of Judah. The first five chapters of his prophecy relate to the reign of Uzziah; the vision in the sixth chapter happened in the time of Jotham: the next nine chapters, to the fifteenth, include his prophecies under Ahaz; and those that were made under Hezekiah and Manasseh are related in the next chapters to the end. Isaiah foretold the deliverance of the Jews from their captivity in Babylon by Cyrus, 100 years before it came to pass. But the most remarkable of his predictions are those concerning the Messiah, which describe not only his descent, but all the principal circumstances of his life and death, so particularly, that he is justly styled the evangelical prophet. His style is noble, nervous, and sublime. Grotius calls him the Demosthenes of the Hebrews. He also wrote a history of king Uzziah's reign (2 Chron. xxvi. 22) which is not extant. During the persecution under Manasseh he is said to have been sawn asunder, about A. M. 3180; after having prophesied ninety-six years, from the twenty-eighth of Uzziah to the twelfth of Manasseh.

ISATIS, in botany, woad, a genus of the siliquosa order, tetradymania class of plants; na-

tural order thirty-ninth, *siliquosæ*. The siliqua is lanceolated, unilocular, monospermous, bi-valved, and deciduous; the valves navicular or canoe-shaped. There are five species; but the only one worthy of notice is

1. *tinctoria*, or common woad which is cultivated in several parts of Britain for dyeing; being used as a foundation for many of the dark colors. The plant is biennial; the lower leaves are of an oblong oval figure, and pretty thick consistence, ending in obtuse roundish points; they are entire on their hedges, and of a lucid green. The stalks rise four feet high, dividing into several branches, garnished with arrow-shaped leaves sitting close to the stalks; the branches are terminated by small yellow flowers, in very close clusters, composed of four small petals in form of a cross, which are succeeded by pods shaped like a bird's tongue, which, when ripe, turn black, and open with two valves, having one cell, in which is situated a single seed. This plant is never cultivated long in the same spot: for the best ground will not admit of being sown with woad more than twice; if oftener repeated, the crop seldom pays the charges. As the goodness of woad consists in the size and fatness or thickness of the leaves, the only method to obtain this, is by sowing the seed upon ground at a proper season; allowing the plants proper room to grow; and keeping them clean from weeds, which, if permitted to grow, rob the plants of their nourishment. After having chosen a proper spot of land, which should not be too light and sandy, nor over stiff and moist, but rather a gentle hazel loam, whose parts easily separate, plough this up just before winter, laying it in narrow high ridges, that the frost may penetrate through the ridges to mellow and soften the clods; then in spring plough it again crosswise, laying it in narrow ridges. After it has lain for some time, and the weeds begin to grow, it should be well harrowed to destroy them: this should be repeated twice while the weeds are young; and, if there be any roots of large perennial weeds, they must be harrowed out, and carried off the ground. In June the ground should be ploughed a third time, when the furrows should be narrow, and the ground stirred as deep as the plough will go, that the parts may be as well separated as possible; and, when the weeds appear again, the ground should be well harrowed to destroy them. Toward the end of July, or the beginning of August, it should be ploughed the last time, when the land should be laid smooth; and when there is a prospect of showers the ground must be harrowed to receive the seeds, which should be sown in rows with the drill-plough, or in broad-cast after the common method; but it will be proper to steep the seeds one night in water before they are sown, which will prepare them for vegetation: if the seeds are sown in drills they will be covered with an instrument fixed to the plough for that purpose, but those which are sown broad cast in the common way must be well harrowed in. If the seeds are good, and the season favorable, the plants will appear in a fortnight, and in four or five weeks will be fit to hoe; for the sooner this is performed, when the plants are distinguishable, the better they will thrive, and the weeds being then

young will be soon destroyed. The method of hoeing these plants is the same as for turnips, with this difference only, that these plants need not be thinned so much; for at the first hoeing, if they are separated four inches, and at the last six inches, it will be space enough for growth; and if this be carefully performed, in dry weather, most of the weeds will be destroyed. If the land, in which this seed is sown, should have been in culture before for other crops, it will require dressing before it is sown, in which case rotten stable dung is preferable to any other; but this should not be laid on till the last ploughing, just before the seeds are sown, and not spread till the land is ploughed, that the sun may not exhale the goodness of it, which in summer is soon lost when spread on the ground. The quantity should not be less than twenty loads to each acre, which will keep the ground good till the crop of woad is entirely spent. The time for gathering the crop is according to the season; but it should be performed as soon as the leaves are fully grown, while they are perfectly green; for, when they begin to grow pale, great part of their goodness is over, for the quantity will be less, and the quality greatly diminished. If the land is good, and the crop well husbanded, it will produce three or four gatherings; but the first two are the best. These are commonly mixed together in the manufacturing; but the after crops are always kept separate; for, if these are mixed with the other, the whole will be of little value. An acre of land will produce a ton of woad, and in good seasons nearly a ton and a half. When the planters intend to save the seeds, they cut three crops of the leaves, and then let the plants stand till the next year for seed; but if only one crop is cut, and that only of the outer leaves, letting all the middle leaves stand to nourish the stalks, the plants will grow stronger, and produce a much greater quantity of seeds. These seeds are often kept two years, but it is best to sow new seeds when they can be obtained. The seeds ripen in August; and, when the pods turn to a dark color, the seeds should be gathered. It is best done by reaping the stalks in the same manner as wheat, spreading them in rows upon the ground: in four or five days the seeds will be fit to thresh out, if the weather is dry; for if it lies long the pods will open and let out the seeds.

ISATIS, in zoology. See *CANIS*.

ISAURA, or ISAURUS, in ancient geography, a strong city at Mount Taurus, in Isauria, twice demolished; first by Perdiccas, or rather by the inhabitants, who, through despair, burned the city and themselves, rather than fall into the hands of the enemy; again by Servilius, who thence took the surname Isaureus.

ISAURIA, a country bordering on Pamphylia and Cilicia on the north, and rugged and mountainous, situated almost in Mount Taurus, and taking its name from Isaura; according to some, extending to the Mediterranean by a narrow slip.

ISCA DUMNIORUM, an ancient town of Britain, now named Exeter, capital of Devonshire; and called Caer Isk in British.

ISCA SILURUM, the station of the Legio II., Augusta, in Britain, now called Caerleon, a town of Monmouthshire.

ISCHÆMUM, in botany, a genus of the monocotyledonous order, and polygamia class of plants: natural order fourth, gramine; hermaphrodite CAL. a bilobed glume; cor. bivalved; there are three stamens, two styles, and one seed. Male CAL. and cor. as in the former, with three stamens. Species eight, all natives of the East Indies.

ISCHIA, an island of Naples, thirteen miles in circumference, and three from the coast of Terra di Lavoro; full of agreeable valleys and mountains, which produce excellent fruits and vines; and abounding with fountains, rivulets, and fine gardens. This island was taken by the British troops under Sir John Stuart in 1809, but soon after evacuated.

ISCHIA, the capital of the above island, with a bishop's see and a strong fort. Both the city and fort stand upon a rock, which is joined to the island by a strong bridge; the rock is about seven furlongs in circumference. The city is like a pyramid of houses piled upon one another, which makes a very singular and striking appearance. At the end of the bridge next the city are iron grates, which open into a subterraneous passage through which they enter the city. They are always guarded by soldiers who are natives of the island. Long. $13^{\circ} 55' E.$, lat. $40^{\circ} 30' N.$

ISCHIADIC, *adj.* Fr. *ischiatique*; Gr. *ἰσχίων, ἰσχυρικός*. In anatomy, an epithet given to the crural vein; in pathology, the ischiadic passion is the gout in the hip, or the sciatica.

ISCHIUM, a river and circle of Siberia, in the government of Tobolsk. The river rises in the country of the Kirghises, and flowing north-east, after a course of some length, falls into the Irtysch. Many ancient graves are found along its banks. The circle extends about 250 miles from east to west, and 140 from north to south, on the left of the Irtysch, and along the Ischim. The western part composes the Steppe of Ischim, consisting of a vast barren plain, filled with small lakes and marshes, salt and fresh. Cattle are here the only product; and these, from the bad quality of the air and water, thrive very poorly. The eastern part is fertile, abounding in wood, water, and pasture. The capital is also called Ischim; it is situated on the left bank of the Ischim, and contains about 1000 inhabitants.

ISCHIUM, in anatomy, one of the bones of the pelvis. See ANATOMY.

ISCHURIA (*ἰσχεπα*, from *ἰσχω*, I stop, and *σπον*, urine), in physic, a disease consisting in an entire suppression of urine. See MEDICINE. It is occasioned by some obstruction in the passages of the reins, ureters, or the neck of the bladder, as sand, stone, mucus, &c. It may also arise from an obstruction of the nerves which pass to the reins or bladder, as it does in a palsy of the parts below the diaphragm. The too great distension of the bladder may also produce the same effect; whence it is that persons who have retained their urine for a long time, find great difficulty in discharging it.

ISCHURIE, *n. s.* Fr. *ischurie*; Lat. *ischu-*

ISCHURETIC, *n. s.* *ischia*; Gr. *ἰσχυρια, ισχω*, and *σπον*, urine. A stoppage of urine, whether by gravel or other cause. Ischuretics are medicines given to remove obstructions of this nature.

ISELASTICS, a kind of games, or combats,

celebrated in Greece and Asia, under the Roman emperors. The victor had very considerable privileges conferred on him, after the example of Augustus and the Athenians, who had thus honored conquerors at the Olympic, Pythian, and Isthmian games. They were crowned on the spot immediately after their victory, had pensions allowed them, were furnished with provisions at the public cost, and were carried in triumph to their own country.

ISER, or **ISAR**, a river of Bavaria, which has its source in the Tyrolese Alps, near little Saalfeld, and flowing in a curved direction, near N. N. E., passes by Munich. After crossing the whole of the circle to which it gives name, and part of that of the Lower Danube, it joins the Danube at Deckendorf. Gold in small quantities is found in its sands.

ISER, or **ISAN**, is one of the largest circles of the kingdom of Bavaria. It lies between 46° and $42^{\circ} 21'$ of E. long., and $47^{\circ} 29'$ and 46° of N. lat., and is bounded partly by the Bavarian circles of the Regen and the Upper Danube, partly by the Austrian states. In the course of the political events which took place between 1808 and 1816, its area was finally settled at about 5000 square miles, with a population of 503,000. It comprises most of the southern part of the old duchy of Bavaria, and is divided into twenty-six districts; its chief town, Munich, being the capital of the kingdom. The Tyrolese Alps penetrate into the south, which is consequently cold; the north of the circle forms a long plain, with few elevations, possessing great fertility. The rivers are numerous; comprising the Iser, and the Lech.

ISERE, an important department of France, and part of the former province of Dauphiné. It derives its name from the river Isere, which flows through it from east to west. The principal place of this prefecture is Grenoble, and it consists of four arrondissements or subprefectures. Grenoble, containing 187,417 inhabitants; Saint Marcellin, 78,030; Latour Duplin, 415,647; and Vienne, 124,493: its total population being 505,585 souls. It has forty-four justiciaries of the peace, 558 communes, and extends over a surface of 2374 square miles, yielding a revenue of 24,134,000 francs, and is included in the seventh military division. It is divided into four electoral arrondissements, sending six members to the chamber of deputies, and has a royal court and bishopric at Grenoble.

The department of the Isere is bounded on the north by the department of Ain; on the east by Piedmont; on the south by the department of the Upper Alps; on the south-west by that of the Drome, and on the west by that of the Rhone. It is bordered by a chain of mountains, which joins the Alps of Savoy and Piedmont. In the more elevated regions, where the ground is chiefly rocky, a little corn and a few vegetables only are cultivated; the earth is covered with snow during a long winter, and on the summits of the mountains there are even glaciers and perpetual snows. Vast forests of fir cover the sides of these mountains, interspersed with villages surrounded with fine pastures, feeding numerous herds of horned cattle and sheep: a great quantity of cheese is also

made here. This country abounds in game of all kinds; great multitudes of chamois bound from rock to rock, and the eagle and the vulture hover over the frightful precipices, which are to be met with in every direction. The hills are covered with fruit trees and vines; the valleys are fruitful in wheat, different sorts of grain, hemp, and fruits of all kinds; there are also to be found some dry and sandy plains, and some rather extensive marshes. Picturesque scenes are multiplied almost to infinity in this mountainous country; on all sides are to be seen rocks, valleys, passes and defiles, dark forests, torrents and water-falls, grottoes, and fertile and barren plots, separated sometimes by space of 1600 feet. That part known by the name of the Grand Chartreuse particularly deserves attention for its magnificent woods, its romantic situations, and its wild mountains, furrowed with numerous torrents that dash with impetuosity from fall to fall, and with thundering sound bury their waters in the depths of horrible abysses. One cannot view without emotion the savage beauties presented by this vast and dreary solitude, which is singularly contrasted with the delightful valley of Gesivauddau, one of the finest in the world.

The inhabitants make the greatest advantage of so diversified a territory; in the hilly parts their industry is above all praise; they raise terraces on the mountains, one above another, supported by walls of loose stones; convey thither the soil, and open little canals to conduct the water into these naturally barren fields. There are many lakes, which are generally very deep and abound with fish, but none of them are very considerable in size. Great numbers of plants grow on the mountains, which are much used in medicine. The air of this department is very healthy, but the climate in general is rather cold than temperate, which is no doubt owing to its extremely mountainous situation. Although the winters are long, the fruits come to perfect maturity, because the heats are commonly very intense. Being a mountainous country, it is cultivated mostly by oxen and mules, and yields a considerable harvest; it contains 130,700 hectares of forests, consisting of oaks, beech and fir-trees, and 22,000 hectares of vineyards; producing on an average twenty-four francs forty-five centimes, from each hectare of cultivated land. Its productions are wheat, rye, barley, maize, buck-wheat, vegetables, potatoes, fruits of all kinds, walnuts, chestnuts, almonds, vines of excellent quality, wood, medicinal plants, good pasture in the mountains, feeding flocks of wild animals, and numerous artificial meadows. They have a fine race of mules, and numbers of black cattle, great and small game, such as wild goats, chamois, bears, red and white partridges, ortolans, &c., with fish in the rivers and lakes, otters, beavers, and tortoises. Watering canals are made in all places, where the waters can be thus conveyed. There is a botanic garden at Grenoble, and also a royal dépôt of standard measures. Mines of iron, lead, and silver, are worked; and the earth yields some gold, copper, antimony, cobalt, rock crystal, pit-coal, vitriol, and sulphur; there are also

quarries of granite, porphyry, gypsum, white and brown freestone, slate, and plaster, which last serves to manure the land. At Uriage there is an establishment of mineral waters.

Important manufactures are carried on in this department, of cloths for cloaks and packing cloths; its leather gloves, known by the name of Grenoble gloves, are held in great estimation; cloths for soldiers' and negroes' dresses are also manufactured here, as well as mineral acids, fine liqueurs, cannons, iron, steel, paper, and nails. There are likewise extensive factories for dyeing, glass-blowing, the making of earthenware, the forging of copper, and the sawing of marble. The inhabitants have a considerable trade in grain, wines, chestnuts, liqueurs, leather, cloths, skins, gloves, organzine silk, turpentine, wool, hemp, Oysan and Sassenage cheese, walnut oil, lead, and sheet copper.

The chief rivers which water the country are the Rhone and the Isère navigable, the Drac, the Romanche, the Bourbre, and the Veronie. It is crossed by the great roads of Gap, Valence, Lyons, and Chambery.

INSERTIA, in botany, a genus of the hexandria class, and monogynia order; cal. superior six-toothed; cor. funnel-formed, six-cleft, monoppermous. Species two, one a Cayenne tree that yields beautiful wood.

ISHI. *Sax.* i.e. A termination added to an adjective to express diminution; a small degree, or incipient state of any quality: as, bluish, tending to blue; brightish, somewhat bright. It is likewise sometimes the termination of a genitive or possessive adjective: as, Swedish, Danish; the Danish territories, or territories of the Danes. It likewise notes participation of the qualities of the substantive to which it is added: as, fool, foolish; man, mannish; rogue, roguish.

ISHMAEEL, from Heb. יְהוָה אֶלְيִזְעָרָא, and נָשָׁא i. e. God hath heard. The son of Abraham by Hagar, the progenitor of the Arabs, Hagarenes, Ishmaelites, &c.

ISHMAELITES, the descendants of Ishmael, who dwelt from Havila to the wilderness of Sur, towards Egypt, and thus overspread Arabia Petraea. All ancient authors, as well as Josephus, agree that Ishmael was the father of the Arabs. The Ishmaelites, as well as the Jews, afford a living and striking evidence of the truth of divine revelation. The prophecies of the innumerable multitudes, the wild and roving manner of living, and the free, independent, and unconquered state of the Ishmaelites (Gen. xvi. 10, 12; xvii. 20; xxi. 18), have been, and still are, literally and visibly fulfilled in their posterity, the Arabs. See **ARABIANS** and **BEDOUINS**.

ISIA, Gr. Ισια, feasts and sacrifices anciently solemnised in honor of the goddess Isis. They were full of the most abominable impurities, and therefore those who were initiated into them were obliged to take an oath of secrecy. They were held for nine days successively, but became so scandalous, that the senate abolished them at Rome, under the consulate of Piso and Gabinius. They were re-established by Augustus, and the emperor Commodus assisted at them, appearing among the priests of that goddess with his head shaven, and carrying the anubis. *Dioscorides*

tells us, that priests of the goddess, called Iasi, bore a branch of sea-wormwood in their hands instead of olives. They sung the praises of the goddess twice a-day, viz. at the rising of the sun, when they opened her temple, and at night, when they repeated their orisons, and shut up the temple. They begged alms all day. They never covered their feet with any thing but the thin bark of the plant papyrus, and wore no garments but linen, because Isis was the first who taught the culture of this commodity. They were obliged to observe perpetual chastity, and their heads were closely shaved. They were forbidden to eat onions, salt, or the flesh of sheep and hogs.

ISIAC TABLE, one of the most considerable monuments of antiquity, being a plate of copper or brass discovered at Rome in 1525, and supposed, by the various figures in bass relief upon it, to represent the feasts of Isis, and other Egyptian deities. When, in the year 1525, the constable de Bourbon took the city of Rome, a locksmith bought it of a soldier, and afterward sold it to cardinal Bembo, upon whose death it came into the hands of the duke of Mantua, and was kept in that family till the taking of that city by the imperialists in the year 1630, since which it has never been heard of. It had, however, been engraved with all possible exactness by Æneas Vico of Parma. It was divided into three horizontal compartments, in each of which were different scenes, containing different actions. Those compartments are, as it were, different cartouches, distinguished sometimes by single strokes only, but oftener by a very large fascia, which is full of hieroglyphics. The four sides of the table were enclosed with a border, filled up, like the ground, with several figures of the Egyptian gods, and with a great number of hieroglyphics. There have been various opinions as to the antiquity of this monument: some have supposed that it was engraved long before the time when the Egyptians worshipped the figures of men and women. Others, among whom is bishop Warburton, apprehend that it was made at Rome, by persons attached to the worship of Isis. Dr. Warburton considers it as one of the most modern of the Egyptian monuments, on account of the great mixture of hieroglyphic characters which it bears.

ISICLE, *n. s.* Sax. *ípp.* More properly icicle, from ice; but ice should rather be written *ise*. A pendent shoot of ice.

Do you know this lady?

—The moon of Rome; chaste as the *isicle*
That's curlded by the frost from purest snow
Hanging on Dian's temple. *Shakspeare.*

The frosts and snows her tender body spare;
Those are not limbs for *isicles* to tear. *Dryden,*

ISIDORUS (St.), named Damiatensis, or Pelusiota, from his living in a solitude near Pelusium, was the most famous of all St. Chrysostom's disciples, and flourished in the time of the general council held in 421. There are extant 2012 of his epistles in five books. They are short, but well written in Greek. The best edition is that of Paris, in Greek and Latin, printed in 1638, in fol.

ISINGLASS *n. s.* Lat. *ichthyocolla*. From ice, or *ise*, and glass.

Some make it clear by reiterated fermentations, and others by additions, as *isinglass*. *Mortimer.*

The cure of putrefaction requires an incrassating diet, as all viscid broths, hartshorn, ivory, and *isinglass*. *Floyer.*

Isinglass is a tough, firm, and light substance, of a whitish colour, and in some degree transparent, much resembling glue. The fish from which *isinglass* is prepared is one of the cartilaginous kind: it grows to eighteen and twenty feet in length, and greatly resembles the sturgeon. It is frequent in the Danube, the Boristhenes, the Volga, and the larger rivers of Europe. From the intestines of this fish the *isinglass* is prepared by boiling. *Hill.*

ISINGLASS. See *ICHTHYOCOLLA*.

ISINGLASS STONE, *n. s.* A fossil which is one of the purest and simplest of the natural bodies.

ISIS, a celebrated deity of the Egyptians, daughter of Saturn and Rhea, according to Diodorus of Sicily. Some suppose her to be the same with Io. See *Io*. Plutarch says Isis married her brother Osiris, and mentions some other absurd traditions respecting her. Isis was the Venus of Cyprus, the Minerva of Athens, the Cybele of the Phrygians, the Ceres of Eleusis, the Proserpine of Sicily, the Diana of Crete, the Bellona of the Romans, &c. Osiris and Isis reigned jointly in Egypt, but Typhon, the brother of Osiris, rebelled and murdered him. The ox and the cow were the symbols of Osiris and Isis; because, while on earth, they had diligently applied themselves to agriculture. Isis was supposed to be the moon, and Osiris the sun; she was represented as holding a globe in her hand, with a vessel full of ears of corn. The Egyptians believed that the inundations of the Nile proceeded from the tears which Isis shed for the murder of Osiris. Notwithstanding the attempts of the Greeks to identify Isis with their *Io*, Plutarch and Diodorus Siculus assert that this princess was born in Egypt, and married to Osiris, that they lived together in harmony, and concurred in their endeavours to civilise their subjects, teaching them agriculture. Diodorus adds, that Osiris, determining on an expedition to India, made Isis regent of his kingdom. On his return, he found that his brother Typhon had formed a formidable party against the government, and, under a pretence of hospitality, he confined Osiris in a chest exquisitely wrought, and threw it into the Nile. When Isis heard of her husband's death, she made diligent search for the corpse, and, having found it in Phoenicia, returned with it to Egypt, where she caused it to be interred at Abydos. In the mean time, Typhon was endeavouring to secure his new empire, but Isis, being at length recovered from her distress, collected her troops, and placed them under the conduct of Orus, her son, who pursued the tyrant, and vanquished him in two pitched battles. Isis having died some time after her son's victory over Typhon, the Egyptians paid adoration to her, together with her husband Osiris, as to divinities; and, because they had applied themselves to agriculture, the ox and the cow became their symbols. Diodorus Siculus has recorded the following inscription on an ancient monument, by which Isis was characterised:—‘*I, Isis, am the queen of this country.*

And I had Mercury for my prime minister. None had power to hinder the execution of my orders. I am the eldest daughter of Saturn, the youngest of the gods. I am the sister and the wife of king Osiris. I am the mother of king Orus. I am she who resides in the dog-star. The city of Bubastis was built in honor to me. Rejoice, O Egypt, thou that hast been to me instead of a nurse and mother! We have a statue of Isis habited like a Roman matron, having a half moon on the top of her head, her right hand turned towards heaven, and her left towards the earth, to inform us, that she receives the influence of heaven. We have also a medal of the emperor Commodus, where Isis is represented with a half moon, holding a sphere with her right hand, and a vessel full of fruits with her left. The sphere denotes astrology, wherein the Egyptians excelled, and the fruits, the fecundity of Egypt. Her worship was universal in Egypt.

Isis, a river that rises in Gloucestershire, and flows through a part of Wiltshire. It begins to be navigable for boats at Cricklade, and, after running a serpentine course of about four miles, it leaves Gloucestershire, at a village called Castle Eaton, and falls into the Thame. See **THAME**.

ISLA (Joseph Francis de), a learned Spanish Jesuit, who, on the suppression of the order, retired to Bologna, where he died in 1781. He was the author of *Historia del Fra Gerundio de Campazas, alias Zotes*, Madrid, 1753, tome I., the history of which work is curious. It appeared under the assumed name of Francisco Lobo de Salazar, minister of the parish of St. Peter, in Villagarcia, and was a severe satire upon the fanaticism and ignorance of the Spanish monks: but, in the first instance, it was approved by the inquisition, until the jealousy of the Dominicans and mendicant orders induced the council of Castile to suppress it, and forbade the publication of the second part. The author now presented it to Mr. Baretti, by whose means it was printed entire in English in 1771, and afterwards in German. Isla is said to be regarded by his countrymen as a second Cervantes.

ISLA DE LA GENTE HERMOGA, or Island of the Handsome People, called also Isla de Monterey, from the name of a viceroy of Mexico, an island in the Pacific Ocean, discovered by Mendana. It is about six leagues in circumference; and, when the boats with difficulty landed, the Spaniards found the island inhabited by a people that opposed them in every enterprise; so that after some unsuccessful attempts they were obliged to abandon this island without obtaining refreshments. The Spaniards, they say, had never seen men so handsome, or met with enemies so formidable; they speak with enthusiasm of the beauty, fairness, and studied dress of the females, who, according to their accounts, surpassed even the fairest ladies of their own country, both in grace and beauty. Long. $175^{\circ} 10' W.$, lat. $10^{\circ} S.$

ISLAM, the true Mahomedan faith. See **MAHOMMEDANISM**.

ISLAMABAD, an old town of Bengal, the Vor. XII.

capital of the district of Chittagong, stands on the western bank of the river Currumpooly, at the distance of about ten miles from the sea. It is the residence of the judge and civil establishment; and has a cantonment for a battalion of native infantry. Ships are built here, and sent to Calcutta for sale: the commerce is also considerable. This town was called by the Portuguese Porto Grando, and alternately belonged to the Afghan kings of Bengal, and the rajah of Arracan. It was taken from the latter by the Moguls in the year 1666, and was at that period well fortified, mounting 1223 cannon. The Delhi emperor changed its name from Chittagong to Islamabad. In 1689 the English failed in an attack on it, but in 1760 it was ceded to us, with the district, by Jaffer Ali Khan. The entrance to the river is dangerous without a pilot.

ISLAND, n. s. { Lat. *insula*; Ital. *isola*; Fr. *île*; Erse. *cáilidh*; Sp. *isla*.

ISLANDER, n. s. { Fr. *île*; Erse. *cáilidh*; Sp. *isla*. A tract of land surrounded by water: an islander is an inhabitant of an island: isle is synonymous with island, written, perhaps, corruptly for *aisle*, from Fr. *aisle*, from Lat. *ala*: the *aisle* being probably at first only a wing or side walk. Or it may come from Fr. *alleé*, a walk. A long walk in a church, or public building.

To see you here, us thinke marvaile,
And how withouten bote or saile,
By any subtily or wyle,
Ye, get, have, entre in this *gle*.

Chaucer's Dreame.

W thin a wandering *island*, that doth ronne
And stray in perilous gulfes her dwelling is:
Fayre Sir if ever there ye travell, shome
The cursed land where many wend amis,
And know it by the name, it bight the Bowre of Bliss.

Spenser. Faerie Queene.
He will carry this *island* home in his pocket, and
give it his son for an apple. And, sowing the ker-
nels of it in the sea, bring forth more *islands*.

Shakspeare. Tempest.

Your dinner, and the generous *islanders*
By you invited, do attend your presence.

Shakspeare.

The instalment of this noble duke
In the seat royal of this famous *isle*. *Id.*
We, as all *islanders*, are lunares, or the moon's
men. *Cauden.*

Hark then, ah, hark! ye gentle shepherd crew;
An *isle* I fain would sing an *island* fair;
A place too seldom viewed yet still in view
Near as ourselves, yet farthest from our care.

Fletcher's Purple Island.

What the ocean binds is by the bishops rent,
As seas make *islands* in the continent;
One king, one faith, one language, and one *isle*,
English and Scotch 'tis all but cross and pile.

Marvell.

There are many bitter sayings against *islanders* in general, representing them as fierce, treacherous, and inhospitable: those who live on the continent have such frequent intercourse with men of different religions and languages, that they become more kind than those who are the inhabitants of an *island*.

Addison's Freeholder.

O'er the twilight groves and dusky caves,
Long sounding *istes* and intermingled graves,
Black Melancholy sits. *Pope.*

Island of bliss! amid' the subject seas.

Thomson.

P

I've seen thee smile,
When the clear sky shewed Ariadne's *isle*,
Which I have pointed from these cliffs.

Byron. Corsair.

ISLAND, or ICELAND CRYSTAL. See ICELAND CRYSTAL.

ISLANDS from their situation derive many advantages, among which one of the most considerable is that the climate is generally mild and salubrious from the vapors of the surrounding sea, which, according to the latitude, abates the violence of heat, and moderates the rigor of cold, both of which are sensibly and constantly less than on continents under the same elevation of the pole. We have a remarkable instance of this in the islands called anciently Stoehades, by us the Hieres. They are three in number, lying in lat. 43° N. before Toulon. In them the fruits of France and Italy arrive at the highest perfection, and all the medical herbs of Italy, Greece, and Egypt, grow wild. Yet the climate is temperate and pleasant in all seasons. A considerable advantage arises from accessibility on every side, by which islands are open to receive supplies from other countries, and have the convenience of exporting their commodities and manufactures to all markets, and, in comparison of the continent, at all seasons. The opposite sides of an island may, in regard to commerce, be considered as two countries; each has its ports, its proper commodities, its proper correspondences; in consequence of which it promotes the cultivation, and procures vent for the manufactures, of a large district behind it; while the intermediate midland space finds a profit in that inland trade which these two districts supply. The winds contrary on one side are favorable on the other; and the sea, the common road to both coasts, is continually ploughed by vessels outward and homeward bound, which keeps up that active and enterprising spirit which characterises islanders. An island has the most extensive and the most effectual frontier on all sides, subsisting for ever, without repairs, and without expense: and, which is still more, derives from this very frontier a great part of the subsistence of its inhabitants, and a valuable article in its commerce, from its fisheries. It is commonly said the sea is a mine, but its treasures are more lasting and more certain, procured by labor solely, and fit for use or for sale as soon as procured, quickly consumed, and thereby the source of continual employment to a stout, hardy, laborious race of men, who likewise find employment for numbers, and are in various respects otherwise beneficial members of the community.

Respecting the *formation* of islands while some naturalists are of opinion, that the islands were formed at the deluge; others observe that there have been new islands formed by the casting up of vast heaps of clay, mud, sand, &c.; others think they have been separated from the continent by violent storms, inundations, and earthquakes. These last have observed that the East Indies, which abound in islands more than any other part of the world, are likewise more annoyed with earthquakes, tempests, lightnings, volcanoes, &c., than any other part. Others

again conclude that islands are as ancient as the world, and that there were some at the beginning; and, among other arguments, support their opinion from Gen. x. 5, and other passages of Scripture. Varenius thinks that there have been islands produced each of these ways. St. Helena, Ascension, and other steep rocky islands, he supposes to have become so by the sea overflowing their neighbouring champaigns: by the heaping up huge quantities of sand, and other terrestrial matter, he thinks the islands of Zealand, Japan, &c., were formed. Sumatra and Ceylon, and most of the East India islands, he supposes were rent off from the main land; and concludes that the islands of the Archipelago were formed in the same way, imagining it probable that Deucalion's flood might contribute towards it. The ancients had a notion that Delos, and a few other islands, rose from the bottom of the sea; which, how fabulous soever it may appear, agrees with later observations. Seneca takes notice that the islands Therasia rose thus out of the Egean Sea in his time, of which the mariners were eye-witnesses. It is indeed very probable that many islands have existed not only from the deluge, but from the creation of the world; and we have undoubted proofs of the formation of islands in all the different ways above mentioned. Another way, however, in which islands are frequently formed in the South Sea, is by the coralline insects. These islands are generally long and narrow; they are formed by a narrow bar of land, enclosing the sea within it; generally, perhaps always, with some ingress at least to the tide; commonly with an opening capable of receiving a canoe, and frequently sufficient to admit even larger vessels. The origin of these islands will explain their nature. These islands being covered to the west by Borneo, the winds from that quarter do not attack them with violence. But the north-east winds, tumbling in the billows from a wide ocean, heap up the coral with which those seas are filled. This, obvious after storms, is perhaps at all other times imperceptibly effected. The coral banks, raised in the same manner, become dry. These banks are found of all depths, at all distances from shore, entirely unconnected with the land, and detached from each other: although it often happens that they are divided by a narrow gut without bottom. Coral banks also grow, by quick progression, towards the surface: but the winds, heaping up the coral from deeper water, chiefly accelerate the formation of these into islands. They become gradually shallower; and, when once the sea meets with resistance, the coral is quickly thrown up by the force of the waves breaking against the bank; and hence, in the open sea, there is scarcely an instance of a coral bank having so little water that a large ship cannot pass over, but it is also so shallow that a boat would ground on it. These coral banks may be seen in all the stages; some in deep water, others with few rocks appearing above the surface; some just formed into islands, without the least appearance of vegetation; and others from such as have a few weeds on the highest part, to those which are covered with large timber, with a bottomless sea at a pistol-shot distance. The loose coral,

rolled inward by the billows in large pieces, will ground; and, the reflux being unable to carry them away, they become a bar to coagulate the sand, always found intermixed with coral; which sand, being easiest raised, will be lodged at top. When the sand-bank is raised by violent storms beyond the reach of common waves, it becomes a resting place to vagrant birds, whom the search of prey draws thither. The dung, feathers, &c., increase the soil, and prepare it for the reception of accidental roots, branches, and seed, cast up by the waves, or brought thither by birds. Thus islands are formed; the leaves and rotten branches, intermixing with the sand, form in time a black mould, of which in general these islands consist; more sandy and less woody; and, when full of large trees, with a greater proportion of mould. Cocoa nuts, continuing long in the sea without losing their vegetative powers, are commonly to be found in such islands; particularly as they are adapted to all soils, whether sandy, rich, or rocky. The violence of the waves within the tropics must generally be directed to two points, according to the monsoons. Hence the island formed from coral banks must be long and narrow, and lie nearly in a meridional direction. For even supposing the banks to be round, as they seldom are when large, the sea, meeting most resistance in the middle, must heave up the matter in greater quantities there than towards the extremities; and, by the same rule, the ends will generally be open, or at least lowest. They will also commonly have soundings there, as the remains of the bank, not accumulated, will be under water. Where the coral banks are not exposed to the common monsoon, they will alter their direction; and be either round, extending the parallel, or be of irregular forms, according to accidental circumstances. The interior parts of these islands being sea, sometimes form harbours capable of receiving vessels of some burden, and always abound greatly with fish. It need not be repeated, that the ends of those islands only are the places to expect soundings; and they commonly have a shallow spit running out from each point. Abdul Roobin's observation points out another circumstance, which may be useful to navigators; by consideration of the winds to which any islands are most exposed to form a probable conjecture which side has deepest water; and from a view which side has the shoals an idea may be formed which winds rage with most violence. See CORAL.

To the above we have only to add, that the common foundation of all those clusters of islands which modern navigators have discovered in the Pacific Ocean, and to which the name of Polynesia has been given, as well as of those which belong to Australasia or New South Wales and perhaps of New South Wales itself, is evidently of coral structure; immense reefs of which shoot out in every direction. And it is a circumstance peculiarly worth notice, that notwithstanding this prodigious quantity of lime in the form of coral, not a single bed, and scarcely a particle of chalk, has hitherto been met with either in the islands or on the continent.

There are other islands which are occasionally raised by the violent agency of the subterraneous

volcanoes. These, however, are comparatively but few in number, and in mass of matter bear no proportion to those which we have reason to believe are perpetually forming by the silent but persevering efforts of the sea-worms we are now more immediately adverting to; and, as we have already given instances of such occasional disruptions from the bowels of the earth, we need not enlarge upon them in the present place.

The island of Acroteri, of no mean fame in ancient history, appears to have its surface composed of pumice-stone, encrusted with a surface of fertile earth, and the ancients represent it as rising, in a violent earthquake, out of the sea. Four neighbouring islands have had a similar origin, and yet the sea is here of such a depth as to be unfathomable by any sounding line. These arose at different times; the first long before the commencement of the Christian era, the second in the first century, the third in the eighth, and the fourth in 1573. Similar eruptions of islands have occurred in the group of the Azores. Thus, in December 1720, a violent earthquake was felt on the island of Tercera. In the night and the next morning the top of a new island appeared, which ejected a huge column of smoke. The pilot of a ship, who attempted to approach it, sounded on one side of the new formed island, with a line of sixty fathoms, but could find no bottom. On the opposite side, the sea was deeply tinged with various colors, white, blue, and green, and was very shallow. This island was larger on its first appearance than at some distance of time afterwards; it at length sunk below the level of the sea, and now is no more to be found.

The following is a more detailed description of a similar phenomenon occurring in the same quarter, though of much later date. We copy it from Captain Tillard's narrative, communicated to the Royal Society. 'Approaching,' says he, 'the island of St. Michael's, on Sunday, June 12th, 1811, in his majesty's sloop Sabrina under my command, we occasionally observed, rising in the horizon, two or three columns of smoke, such as would have been occasioned by an action between two ships, to which cause we universally attributed its origin. This opinion was, however, in a very short time changed, from the smoke increasing and ascending in much larger bodies than could possibly have been produced by such an event; and having heard an account, prior to our sailing from Lisbon, that in the preceding January or February a volcano had burst out within the sea near St. Michael's, we immediately concluded that the smoke we saw proceeded from that cause, and, on our anchoring next morning in the road of Ponta del Gada, we found this conjecture correct as to the cause, but not to the time; the eruption of January having totally subsided, and the present one having only burst forth two days prior to our approach, and about three miles distant from the one before alluded to.'

'Desirous of examining as minutely as possible a contention so extraordinary between two such powerful elements, I set off from the city of Ponta del Gada on the morning of the 14th, in company with Mr. Read, the consul general of the

Azores, and two other gentlemen. After riding about twenty miles across the north-west end of the island of St. Michael's, we came to the edge of a cliff whence the volcano burst suddenly upon our view in the most terrific and awful grandeur. It was only a short mile from the base of the cliff, which was nearly perpendicular and formed the margin of the sea: this cliff being as nearly as I could judge from 300 to 400 feet high. To give you an adequate idea of the scene by description is far beyond my powers; but for your satisfaction I shall attempt it.

'Imagine an immense body of smoke rising from the sea, the surface of which was marked by the silvery rippling of the waves, occasioned by the light and steady breezes incidental to those climates in summer. In a quiescent state it had the appearance of a circular cloud revolving on the water like an horizontal wheel, in various and irregular involutions, expanding itself gradually on the lee side, when suddenly a column of the blackest cinders, ashes, and stones would shoot up in form of a spire at an angle of from 10° to 20° from a perpendicular line, the angle of inclination being universally to windward: this was rapidly succeeded by a second, third, and fourth, each acquiring greater velocity, and overtopping the other till they had attained an altitude as much above the level of our eye, as the sea was below it. As the impetus with which the columns were severally propelled diminished, and their ascending motion had nearly ceased, they broke into various branches resembling a group of pines, these again forming themselves into festoons of white feathery smoke in the most fanciful manner imaginable, intermixed with the finest particles of falling ashes, which at one time assumed the appearance of innumerable plumes of black and white ostrich feathers surmounting each other; at another, that of the light wavy branches of a weeping willow. During these bursts the most vivid flashes of lightning continually issued from the densest part of the volcano; and the cloud of smoke, now ascending to an altitude much above the highest point to which the ashes were projected, rolled off in large masses of fleecy clouds, gradually expanding themselves before the wind in a direction nearly horizontal, and drawing up to them a quantity of water-sprouts, which formed a most beautiful and striking addition to the general appearance of the scene.'

'That part of the sea where the volcano was situated was upwards of thirty fathoms deep, and at the time of our viewing it the volcano was only four days old. Soon after our arrival on the cliff, a peasant observed he could discern a peak above the water: we looked, but could not see it; however, in less than half an hour it was plainly visible, and before we quitted the place, which was about three hours from the time of our arrival, a complete crater was formed above the water, not less than twenty feet high on the side where the greatest quantity of ashes fell; the diameter of the crater being apparently about 400 or 500 feet.'

'The great eruptions were generally attended with a noise like the continued firing of cannon

and musquetry intermixed, as also with slight shocks of earthquakes, several of which having been felt by my companions, but none by myself, I had become half sceptical and thought their opinion rose merely from the force of imagination; but while we were sitting within five or six yards of the edge of the cliff, partaking of a slight repast which had been brought with us, and were all busily engaged, one of the most magnificent bursts took place which we had yet witnessed, accompanied by a very severe shock of an earthquake. The instantaneous and involuntary movement of each was to spring upon his feet, and I said, 'This admits of no doubt.' The words had scarcely passed my lips, before we observed a large portion of the face of the cliff, about fifty yards on our left, falling, which it did with a violent crash. So soon as our first consternation had a little subsided, we removed about ten or a dozen yards further from the edge of the cliff, and finished our dinner.

'On opening the volcano clear of the north-west part of the island, after dark on the 16th, we witnessed one or two eruptions that, had the ship been near enough, would have been awfully grand. It appeared one continued blaze of lightning; but the distance which it was at from the ship, upwards of twenty miles, prevented our seeing it with effect. Returning again toward St. Michael's on the 4th of July, I was obliged, by the state of the wind, to pass with the ship very close to the island, which was now completely formed by the volcano, being nearly the height of Matlock High Tor, about eighty yards above the sea. At this time it was perfectly tranquil; which circumstance determined me to land, and explore it more narrowly.'

'I left the ship in one of the boats, accompanied by some of the officers. As we approached, we perceived that it was still smoking in many parts, and upon our reaching the island found the surf on the beach very high. Rowing round to the lee side, with some little difficulty, by the aid of an oar, as a pole, I jumped on shore, and was followed by the other officers. We found a narrow beach of black ashes, from which the side of the island rose in general too steep to admit of our ascending; and, where we could have clambered up, the mass of matter was much too hot to allow our proceeding more than a few yards in the ascent. The declivity below the surface of the sea was equally steep, having seven fathoms water scarce the boat's length from the shore, and at the distance of twenty or thirty yards we sounded twenty-five fathoms.'

'From walking round it in about twelve minutes, I should judge that it was something less than a mile in circumference; but the most extraordinary part was the crater, the mouth of which, on the side facing St Michael's, was nearly level with the sea. It was filled with water, at that time boiling, and was emptying itself into the sea by a small stream about six yards over, and by which I should suppose it was continually filled again at high water. This stream, close to the edge of the sea, was so hot, as only to admit the finger to be dipped suddenly in, and taken out again immediately. It appeared evident, by the formation of this part of the island, that the

sea had, during the eruptions, broken into the crater in two places, as the east side of the small stream was bounded by a precipice, a cliff between twenty and thirty feet high forming a peninsula of about the same dimensions in width and from fifty to sixty feet long, connected with the other part of the island by a narrow ridge of cinders and lava, as an isthmus of from forty to fifty feet in length, from which the crater rose in the form of an amphitheatre?

ISLANDS, FLOATING. History abounds with accounts of floating islands; but the greatest part of them are either false or exaggerated. What we generally see of this kind is no more than the concretion of the lighter matter floating on the surface of the water in cakes; and, with the roots of the plants, forming congeries of different sizes, which, not being fixed to the shore in any part, are blown about by the winds and float on the surface. These are generally found in lakes, where they are confined, and, in process of time, some of them acquire a considerable size. Seneca tells us of many of these floating islands in Italy; and some later writers have described not a few of them in other places. But however true these accounts might have been, at the time when they were written, very few proofs of their authenticity are now to be found; the floating islands having either disappeared, or been so fixed to the sides as to make a part of the shore. Pliny tells us of a great island which at one time floated about in the lake Cufina in the country of Reatium, which was discovered to the old Romans by a miracle; and Poinponius tells us, that in Lydia there were several islands so loose in their foundations that every little accident shook and removed them.

ISLE OF DOGS. See Dogs.

ISLE OF FRANCE, one of the twelve ci-devant governments of France. It was bounded on the north by Picardy, west by Normandy, south by the Orleansois, and east by Champagne. It was about ninety miles in length and breadth. The air is temperate, and the soil fertile; and it abounds in wine, corn, and fruits.

ISLE OF FRANCE. See Mauritius.

ISLE OF WIGHT. It has been conjectured that this island was originally connected with the main land, but that the violence of the sea has gradually disjoined it from the neighbouring shore. This conjecture is strengthened by the circumstance of its having been called by the British Guith or Guich, signifying the divorced or separated; hence arose the appellation of Vectis, or the separated region. It belongs to the county of Southampton or Hants, already described; and the general outline of its early history will apply to both districts.

This isle is separated from the beautiful coast of Hampshire by a channel, varying in breadth from two to seven miles. It is nearly surrounded on the south by the English Channel, having Hampshire on the north. Its form is that of an irregular lozenge. The face of the country is richly diversified: hill and dale, the swelling promontory, and the lowly glen, appear in quick succession to animate and give interest to the prospects. The land is in some parts very high, particularly on the south, or back of the island,

as it is commonly termed. Here the cliffs are very steep, and vast fragments of rock, which the waves have undermined, lie scattered along the shore. On the northern side the ground slopes to the water in easy declivities, excepting towards the Needles, or western point, where the rocks are bare, broken, and precipitous. The height of the cliffs, of which the Needles form the extreme point, is in some places 600 feet above the level of the sea; and, when viewed from the distance of about a quarter of a mile, has a very sublime and stupendous effect. These cliffs are in some places perpendicular, in others they project and hang over in a tremulous manner. Here are many caverns and deep chasms that seem to enter a great way into the rocks; and in many places the issuing of springs forms small cascades of rippling water down to the sea.

The rocks called the Needles obtained their name from a lofty pointed one, resembling a needle in shape, which had been disjoined with the others from the main land by the force of the waves. This was 120 feet above low water mark; but about fifty years ago it fell, and totally disappeared, its base having been undermined by the sea. All the higher parts of the isle are composed of an immense mass of calcareous matter, of a chalky nature, incumbent on schistus, which runs under the whole isle, and appears at low water mark on the coast near Mattison. This becomes so indurated, by exposure to the air, as to make very good whetstones. The lime-stone is burnt for manure; and in the pits where it is dug for that purpose are found numerous echini, sharks' teeth, and ammonie. These fossils are particularly abundant in the range of cliffs which forms the southern shore, together with bivalve and turbinated shells of various descriptions. The cornua ammonis are of all sizes, from one inch to a foot and a half in diameter.—This isle extends from the eastern to the western angle nearly twenty-three miles; and from the northern to the southern about thirteen. There are two hundreds, East and West Medina, containing thirty parishes, and three market and borough towns. Its superficies is supposed to include 105,000 acres.

The southern division of this island is much exposed to the fury of the westerly winds, whilst that looking to the north, though in a great measure exempt from this turbulence of weather, is still not so forward in its seasons by ten days or a fortnight. In the absence of the south westerly gales nothing can exceed the mildness and salubrity of the climate on the south side. The northeasterly winds seem little to affect this situation, as their force and height are much abated by the elevated ridge of down and forest land, which extends nearly east and west through the middle of the island. The north-easterly winds prove extremely hurtful in the northern parts, by retarding vegetation in the spring of the year, and by the mischief they produce among the early fruit and apples. Mr. Vancouver describes the soil of the north and south borders as a rough, strong clay, of argillaceous and calcareous marl. On the western quarter of the northern division the soil appears much varied, which in

some places may be more aptly referred to the treatment it may have undergone, than to any specific difference in its native quality. From Yarmouth, extending easterly along the northern coast of the island towards Cowes, bounded southwardly by the King's, or Carisbrook Forest, and returning thence westwardly, at an average distance of about a mile from the coast, the soil of the country is composed of a strong gravelly loam, upon a brown and yellow clay, which is generally found to terminate in a deep bed of gray and a bluish argillaceous marble. A strong, brown, tough clay, without stones, and lying on a purple, red, blue, and yellow clay, forms the other character of soil and substrata composing this district; but in which, and in addition to the argillaceous marble, a pure white shell marble is found to occur, in veins of various thickness, through the parishes of Thorley, Shalfleet, Swainston, and under the western parts of Carisbrook Forest. The western part of the southern division of this isle comprises parts of the parishes of Brook, Moltleston, Brixton, Kingston, Chale, and the west side of St. Catherine's Hill. These all bind upon the southern coast of the island, and the stony land extends to an average width of about half a mile northwardly from the cliffs, and is composed of all the variety of soil and substrata above mentioned. Although the north-east quarter of the isle contains a greater variety of soil than can possibly be traced in its preceding sections, still the greater prevalence of stony land requires that it should be included within this district of the county to which the Isle of Wight belongs. Proceeding, therefore, through the northern parts of the parish of St. Helen's, and continuing our examination westwardly, between the foot of the Chalk-down and the north-east shore of the island, after leaving the sand and gravelly loams which compose the soil in the eastern extremity of the island, we enter a country abounding with much variety of soil and substrata, but which may be generally characterised as oak-tree or sour woodland clay. The sand and gravelly veins, which intersect the clay lands in various directions, seem only remarkable for affording in their vicinity slight modifications of the stronger clay. A strong clay loam forms the upper covering of the northern extremity of the island. This is frequently found to cover a stratum of argillaceous marble, below which is generally found a body of free-stone rock. A sand and gravelly loam very frequently occurs to break the continuation of the stronger lands in the parishes of East and West Cowes, Northwood, and Whippingham; but these often occasion springs, and on the sides of the hills much wet and weeping land.

The principal rivers are the Medina, the Yar, and the Wootom. The Medina, anciently called the Mede, rises near the bottom of St. Catherine's Down, and, flowing directly northward, divides the island into two equal parts gradually widening in its course, it passes to the east of Newport, and in Cowes harbour unites its waters with the ocean. Numerous smaller streams also exist, and various creeks and bays run up from the sea. Several chalybeate springs have been

found in different parts of the island; one of them, at Black Gang, under Chale Cliff, is very strong. About half a mile from this, at Pitland, is a spring impregnated with sulphur; and at Shanklin is a spring whose waters are slightly tintured with alum. The springs of clear water are very numerous, and in general extremely pure and transparent, from the natural percolation which they undergo through the lime-stone strata. Cowes is a favorite watering place, and it is delightfully situated. The aluminous chalybeate waters discovered at Sand Rocks, in the parish of Chale, have been recommended in all asthenic cases arising from a lax fibre and languid circulation. Some of the fossil productions of this highly-favored isle have been already mentioned.

A stratum of coal discovers itself at the foot of Brimbridge Cliff, and runs through the southern parts of the isle, appearing again at Warden Lodge, in Freshwater parish. On the north side of this lies a vein of white sand, and another of fullers' earth; and on the south side is another of red ochre. Freestones of several descriptions are found here, but none of superior quality. Copperas-stones and pipe-clay are also very plentiful in this isle.

Fish are abundant on the coast; those of the crustaceous kind are particularly numerous on the southern shores. The lobster and crab are of uncommon size, and extremely fine. Some of the former are upwards of six pounds in weight; the latter is so abundant on a particular part of the coast, that a neighbouring village has obtained the name of Crab-Niton from this circumstance. The Isle of Wight cockles are very celebrated, the sand-eel is also very plentiful; the cuttle-fish is occasionally taken.

The agricultural produce of this isle has nothing peculiar, except the breed of hogs may be so termed, which are very tall and large, and make excellent bacon. This island, however, has been styled the garden of England: an appellation well justified by the innumerable plants and flowers which grow every where in wild luxuriance; among which are the ophrys apifera, or bee-orchis, the digitalis, or fox-glove, and the euphorbia mamillosa, or rock-samphire. Domestic fowls and poultry are very numerous; and game is still pretty plentiful, notwithstanding the ravages which war, that bane of all comfort and enjoyment, has made here, by the numerous soldiers which have almost at all times been stationed on the island.

This island sends six members to parliament: viz. two for Newport; (this borough had the honor of being represented in the year 1807 by the duke of Wellington, then Sir Arthur Wellesley;) two for Yarmouth; and two for Newton. Dr. Thomas James, a learned divine and antiquary, was born at Newport, about the year 1571. He was so celebrated for his erudition as to be termed a living library. He died in 1629.—Admiral Hobson, a gallant commander in the reign of queen Anne, was born at Bonchurch in this isle.—Dr. Robert Hooke, a learned philosopher, and author of Micrographia, or Philosophical Descriptions of Minute Bodies, &c., was born at Freshwater in 1635. He died in

1702.—Sir R. Worsley, an ingenious antiquary, and author of a History of the Isle of Wight was also a native of the island.

The trade of this island is flourishing. The harbour of Cowes is particularly convenient for shipping and unshipping merchandise. The chief imports are coals, timber, deals, iron, wine, hemp, and fruits; the principal exports wheat, flour, barley, malt, and salt. The chief manufactures are those of starch, hair-powder, and salt; and the making of woollens, sacks, &c. These are chiefly carried on in the House of Industry near Newport.

ISLEBLIANS, in ecclesiastical history, a name given to those who adopted the sentiments of a Lutheran divine of Saxony, called John Agricola, a disciple and companion of Luther, a native of Islebl, whence the name; who, interpreting literally some of the precepts of St. Paul with regard to the Jewish law, declaimed against the law and the necessity of good works.

ISLEIF, an Icelandic historian, who flourished early in the eleventh century. He was sent into Germany by his father Gysser, who had assisted in converting Iceland to Christianity; and, having finished his studies there, he went to Rome, and was ordained in 1056. In his journey he visited the emperor, and conciliated his patronage by making him a present of a bear. Returning in 1057, he founded the see and school of Scalholz, where several prelates of Iceland received their education. Our bishop afterwards wrote Annals of that country, a History of Norway, and the Lives of Harold Fairfax and his successors, including an account of all the Norwegian families who had arrived in Iceland in that prince's reign. Isleif was married, and had a son named Gysser, who published some historical translations. His father died in 1080.

ISLIWORTH, a large parish and village in Middlesex, nine miles west of London, on the Thames. Sion House, the magnificent seat of the duke of Northumberland, and several handsome villas, are in this parish.

ISLINGTON, a village of Middlesex, on the north side of London, to which it is almost contiguous. It appears to be of Saxon origin; and in the Conqueror's time was written Isledon, or Isendon. The church is one of the prebends of St. Paul's; to the dean and chapter of which a certain precinct belongs, for the probate of wills, and granting administrations. The church was a Gothic structure, erected in 1503, and stood till 1751, when the inhabitants applied to parliament for leave to rebuild it, and soon after erected the present structure, which is a very substantial brick edifice. The White Conduit House has handsome gardens with good walks, and two large rooms for the entertainment of company. In the south-west part of this village is that noble reservoir, improperly called New-river Head; though they are only two basins which receive that river from Hertfordshire, and whence the water is thrown by an engine into the company's pipes for the supply of London. In this parish are two charity-schools; one founded in 1613 by dame Alice Owen, for educating thirty children. This foundation, with a row of almshouses, is under the care of the

brewers' company. Here is an hospital with its chapel, and a work-house for the poor. There is a spring of chalybeate water, in a very pleasant garden, which for some years was constantly attended by the princess Amelia. Near this is Sadler's Wells, where, during the summer season, people are anuised with rope-dancing, tumbling, pantomimes, &c.

ISLIP, a town of Oxfordshire, fifty-six miles from London, noted for the birth and baptism of Edward the Confessor. By the inland navigation, it has communication with the rivers Mersey, Dee, Ribble, Ouse, Trent, Derwent, Severn, Humber, Thames, Avon, &c., and the counties of Lincoln, Nottingham, York, Lancaster, Westmoreland, Chester, Stafford, Warwick, Leicester, Oxford, Worcester, &c. It has a good market for sheep, and some remains of an ancient palace, said to have been king Ethelred's. Here is a charity-school. The chapel wherein Edward was baptised standing at a small distance north from the church, and still called the king's chapel, was entirely desecrated during Cromwell's usurpation, and converted to the meanest uses of a farm-yard. It is built of stone, fifteen yards long and seven broad, and retains traces of the arches of an oblong window at the east end. This manor was given by Edward the Confessor to Westminster Abbey, to which it still belongs.

ISMAEL, or **ISMAIL**, a strong town of Turkey in Europe, in Bessarabia. It was taken by storm, by the Russians, on the 22d of December, 1790; and it is said that the long siege, and the capture, did not cost them less than 10,000 men. The most shocking part of the transaction is, that the garrison, whose bravery merited, and would have received from a generous foe, the highest honors, were massacred in cold blood by the merciless Russians, to the amount, by their own account, of 30,000 men: and the place was abandoned to the fury of the brutal soldiery. Ismail is seated on the north side of the Danube, 140 miles south by west of Bender. Long. 29° 30' E., lat. 45° 11' N.

ISMARUS, a town of the Cicones, in Thrace, giving name to a lake. By Virgil it is called Ismara. Servius supposes it to be the mountain of Thrace, on which Orpheus dwelt.

ISMID, the ancient Nicomedea, a town of Asia Minor, capital of Bithynia. There are no traces remaining of its former greatness, except an inferior church. It stands on the side of a hill overlooking the gulf of Nicomedea, and contains 750 families. Long. 29° 34' E., lat. 40° 39' N.

ISNARDIA, in botany, a genus of the monogynia order, and tetrandria class of plants; natural order seventeenth, ealyanthemæ: cor. none; cal. quadrifid; caps. quadrilocular, and girt with the calyx. Species one only, an aquatic annual plant common in Europe and America.

ISNIK, the ancient Nicæa, a town of Asia Minor, and for a short time the capital of Bithynia, is famous in ecclesiastical history as the seat of the two councils of 325 and 787. See NICÆA. It contains at present scarcely 300 houses, yet has many monuments of its former grandeur. The walls may still be traced over a circumference of four miles; and the palace of Theodore

Lascaris forms a most stupendous mass of masonry. The town is situated on a lake communicating with the sea of Marmora, and has a trade in silk. Long. 29° 50' E., lat. 40° 16' N.

ISOCHRONAL, is applied to such vibrations of a pendulum as are performed in the same space of time; as all the vibrations or swings of the same pendulum are, whether the arches it describes are shorter or longer.

ISOCHRONAL LINE, that in which a heavy body is supposed to descend without any acceleration.

ISOCRATES one of the greatest orators of Greece, was born at Athens, A. A. C 436. He was the son of Theodorus, who had enriched himself by making musical instruments, and who gave his son a liberal education. He was the disciple of Prodicus Gorgias, and other great orators. He endeavoured at first to declaim in public, but without success; he therefore contented himself with instructing his scholars, and making private orations; and, being informed of the loss of the battle of Cheronea, he abstained four days from eating, and died in consequence at the age of ninety-eight. There are still extant twenty-one orations, which are much admired, and have been translated from the Greek into Latin by Wolfius. It is recorded, to his praise, that he never, by writing or accusation, injured a single individual. A statue of bronze was raised to his memory by Timotheus, and another by his adopted son Aphareus. The style of Isocrates is pure, sweet and flowing: he was extremely attentive to the harmony of his periods, and he is reckoned by Cicero as the first who introduced into Greek prose that melody of which it is susceptible. He spent much time in polishing his compositions: his panegyric on Athens is said to have cost him ten years' labor. There are also nine letters attributed to him.

ISOETES, in botany, a genus of the natural order of siliques, and the cryptogamia class of plants. The anthers of the male flower are within the base of the frons or leaf. The caps. of the female flower is bilocular, and within the base of the leaf. There are but two species, of which one, *I. lacastrix*, is common to England.

ISOPERIMETRICAL, *n. s.* Gr. *ισος*, *περι*, and *μετρων*. In geometry, are such figures as have equal perimeters or circumferences, of which the circle is the greatest.

ISOPYRUM, in botany, a genus of the polygynia order, and polyandria class of plants; and in the natural method ranking under the twenty-sixth order, multisiliqua: CAL. none: petals five: the nectaria trifid and tubular: CAPS. recurved and polyspermous. Species three; one of Siberia, the other two of the Alps.

ISOSCELES, *n. s.* Fr. *isoscele*, or equiangular triangle. That which has only two sides equal.

ISPANIAN, an elevated district of the province of Irak, in Persia, consisting principally of clusters of villages connected with each other by narrow valleys and defiles of the mountains. One of these valleys, however, is forty miles in breadth, and from sixty-five to seventy miles long. It is called the Hallook of Sinjan, and contains several distinct villages: the Zenderouz or its canals watering the whole. There is not per-

haps a more fertile spot in Persia: but the Afghans have ravaged it in modern times, and the whole district will be long ere it recovers entirely from the effects of their depredations. Pigeons are kept here in large quantities for the sake of their dung, to which, used as a manure, the fineness of the melons of this neighbourhood has been attributed. The chief towns besides Ispahan are Isfeijan and Yezdikhanst.

ISPANIAN, SEPAHAN, or SPANHAUN (*i. e.* a rendezvous), a city of Persia, in the above district, and long the capital of the Persian monarchy. It stands on the river Zeinderood, which is afterwards lost in the desert. It is supposed to be the Aspadana of Ptolemy; but it was then, as indeed now, a place of not much consequence. Previously to the days of Timour it had risen into considerable notice, and was taken by that conqueror in 1337, when 70,000 of its inhabitants are said to have been massacred, and their heads piled in heaps upon the walls. The early Sophis made it the seat of their empire; and Shah Abbas employed all his power and wealth to beautify it as his capital. His palace and gardens extended five miles in circuit. Many of its walls remain entire. When visited by Chardin, in the early part of the eighteenth century, it was at the height of its splendor, and, according to his estimate, was twenty-four miles in circuit, and included nearly 1,000,000 of inhabitants, 172 mosques, forty-eight colleges, 1800 caravanseras, and 273 public baths. The Afghans ravaged and almost reduced it to ruins in 1722, and in this state much of it remains. Modern travellers say that a person may ride for miles amidst the ruins of this immense capital, and that yet it boasts a population of more than 200,000 inhabitants. To Hajee Mahomed Hussein Khan, second minister to the king of Persia, who was a great while governor of Ispahan, and born here, it is said to owe much of its late revival. He informed Mr. Morier that it contained 80,000 families, or 400,000 individuals. According to Mr. Kinnier, the first view which the traveller has, on coming from Shiraz, of this great metropolis, is from an eminence about five miles from the city, when it bursts at once upon his sight, and is, perhaps, one of the grandest prospects in the universe. Its ruinous condition is not observable at a distance, all defects being hid by high trees and lofty buildings; and palaces, colleges, mosques, minarets, and shady groves, are the only objects that meet the eye. Ispahan he still regards as the first commercial city in Persia, being the emporium of the foreign trade between India and Persia, Turkey and Cabul. Its manufactures are various; but in that of gold brocade it has attained unrivalled excellence. The Meydan, or great square, is one-third of a mile in length, and about half that breadth. It was once encircled by a canal, bordered by fine plane trees; but no vestiges of either remain. Here Shah Abbas displayed the horsemanship and military exercises of his court; but it is now devoted to commercial purposes; being surrounded by the finest shops of the city. In the middle is held the market for horses and cattle. There are some fine mosques in the whole circuit of it; but the

palace, forming one of the sides, is the chief ornament. Another object worth notice is the Chaur Baug (or Four Gardens) : a name given to an avenue of more than a mile, reacting from the Meydan to the mountains east of Ispahan. It is composed of four rows of very large plane-trees ; and is about 300 feet broad : the alleys on both sides are raised, and covered with fruits and flowers. Fountains and canals, communicating with the Zeinderood, abound throughout its whole extent. In the garden of the Hinzar Jareeb, a noble edifice destroyed by the Afghans, the finest fruits of Persia are to be found. It is at the east end of this avenue.

Ispahan has also several handsome bridges over the Zeinderood and its canals : that which joins the Chaur Baug with the suburb of Julfa is upwards of 1000 feet long, with thirty-four very large arches.

ISRAEL, from Heb. יִשְׂרָאֵל, and לֶבֶת, i. e. prevailing in the Lord. The name which the angel gave Jacob after having wrestled with him all night at Mahanaim or Penuel. Gen. xxxii. 1, 2, and 28, 29, 30, and Hosea xii. 3.

ISRAEL is also used for the people of Israel, or the whole descendants of Jacob, as well as for the kingdom of Israel, or of the ten tribes distinct from the kingdom of Judah. In both these senses it is used in the following brief chronological lists of the judges and kings of Israel. The Israelites had no king of their nation till Saul, except the short lived usurper Abimelech. Before that they were governed, at first by elders, as in Egypt; then by princes of God's appointment, as Moses and Joshua; then by judges, and last of all by kings.

A CHRONOLOGICAL LIST OF THE JUDGES AND SERVITUDES OF ISRAEL.

A. M.

2453. Moses led the Israelites out of Egypt.
2493. Moses died, aged 120.
2510. Joshua died, after judging Israel seventeen years, aged 110.
2525. The elders governed for about fifteen years.
2532. An anarchy of about seven years, during which the history of Micah, the conquest of Laish, by the Danites, and the civil war between the eleven tribes and Benjamin took place.
2531. The first servitude under Cushan-rishathaim, king of Mesopotamia, which lasted eight years.
2539. Othniel delivered Israel in the fortieth year after peace was established by Joshua.
2579. A peace of about forty years, from the deliverance of Othniel.
2597. The second servitude, under Eglon king of the Moabites, lasted eighteen years.
2597. Ehud delivers Israel, and governs sixty years.
2657. Shamgar governed Israel, and the land had peace till the eightieth year after the deliverance by Ehud.
2677. The third servitude, under the Canaanites, began, and lasted twenty years.
2697. Deborah and Barak deliver the Israelites, and govern forty years.

A. M.

2737. The fourth servitude under the Midianites, which lasted seven years.
2744. Gideon delivers Israel, and governs forty years.
2784. Abimelech made king by the Shechemites.
2787. He is killed at the siege of Thebez.
2788. Tola governs twenty-three years.
2811. Jair governs twenty-two years.
2815. The fifth servitude under the Philistines and Ammonites, which lasted eighteen years.
2833. The death of Jair.
2833. Jephthah chosen head of the Israelites, defeats the Ammonites, and governs six years.
2839. Jephthah dies.
2839. Ibzan of Bethlehem, by the Rabbies reckoned the same with Boaz, governs seven years.
2846. Elon governs ten years.
2856. Abdon judges Israel eight years.
2864. The sixth servitude, under the Philistines, began, which lasted forty years.
2864. Eli the high priest governed twenty-four years, during the time of the servitude under the Philistines.
2867. Samson defends and judges Israel twenty years.
2887. The death of Samson, who judged Israel during the judicature of Eli the high priest, according to some; but Alstedius and others make Eli the successor of Samson.
2888. The death of Eli, and beginning of Samuel's government.
2909. Saul elected king.

A CHRONOLOGICAL LIST OF THE KINGS OF ISRAEL.

2909. Saul, the first king of the Israelites, reigned forty years.
2949. Ishboseth, his son, succeeded, and reigned seven years over part of Israel.
2934. David was anointed king by Samuel, but did not enjoy the regal power till the death of Saul in 2949, and was not acknowledged king of all Israel till after the death of Ishboseth, in 2956.
2990. David died, aged seventy.
2990. Solomon succeeded. He had received the royalunction in 2989.
3029. Solomon died, after reigning forty years. After his death the kingdom was divided, and the ten tribes having chosen Jeroboam for their king, Rehoboam reigned only over the tribes of Judah and Benjamin. See JUDAH.
3051. Jeroboam I. died, after reigning twenty-two years.
3051. Nadab reigned two years.
3053. Baasha twenty-four years.
3077. Elah two years.
Zimri seven days.
3079. Omri reigned twelve years. He had a competitor, Tibni, whom he defeated and killed.
3091. Ahab reigned twenty-two years.
3113. Ahaziah, his son, two years.

A. M.

3115. Jehoram succeeded his brother, reigned twelve years, and was killed in 3127.
 3127. Jehu reigned twenty-eight years.
 3155. Jehoahaz reigned seventeen years.
 3172. Joash reigned sixteen years.
 3188. Jeroboam II. forty-one years.
 3229. Zachariah six months.
 3229. Shallum reigned one month.
 3229. Menahem ten years.
 3239. Pekahiah two years.
 3241. Pekah twenty years, from 3241 to 3261.
 3261. Hoshea reigned nine years, after which the kings of Assyria carried Israel away captive, from 3261 to 3270. See Kines xvii. 6.

ISRAELITES, the descendants of Israel, who were at first called Hebrews, from Heber, one of their ancestors (see HEBER), or from Abraham, who came from the other side of the Euphrates; afterwards Israelites, from Israel the patriarch; and lastly Jews, after their return from the captivity of Babylon, because the tribe of Judah was then much stronger and more numerous than the other tribes. See JEWS.

ISSACHAR, from Heb. יִשְׂכָר, i. e. he hired, or wages, the fifth son of Jacob by Leah, and the progenitor of the tribe so named from him. Tolah, one of the judges, and Baasha, one of the kings of Israel, were of this tribe.

ISSACHAR, one of the divisions of Palestine by tribes, lying south of Zabulon, so as by a narrow slip to reach the Jordan, between Zabulon and Manasseh, Joshua xix. But whether it reached the sea is a question: some holding that it did. But Joshua makes no mention of the sea in this tribe, nor does Josephus extend it farther than to Mount Carmel; and, in Joshua xvii. 10, Asher is said to touch Manasseh on the north, which could not be if Issachar extended to the sea.

ISSOIRE, a fortified town in the department of the Puy de Dôme, France, on the small river Couze. A large street surrounds it, occupying the ground of the old ramparts. Population upwards of 5000. Nineteen miles south by east of Clermont, and 300 S. S. E. of Paris.

ISSOUDUN, a considerable town and arrondissement of France, in the department of Indre, and late province of Berry. It carries on a great trade in wood, cattle, cloth, hats, and stockings, and is seated partly on a plane, and partly on an eminence. Inhabitants 10,000. It is eighteen miles south-west of Bourges.

IS'SUE, *n. s., v. n. & v. a.* { Fr. *issue*. Is'sueless, *adj.* } sueless is without offspring or descendants: the substantive and the verbs have a great variety of meanings as under. In law. Issue has divers applications in the common law: sometimes used for the children begotten between a man and his wife; sometimes for profits growing from an amercement, fine, or expenses of suit; sometimes for profits of lands or tenements; sometimes for that point of matter depending in suit, whereupon the parties join and put their cause to the trial of the jury. Issue is either general or special: general issue seemeth to be that whereby it is referred to the jury to bring in their verdict, whether the defendant have done any such thing

as the plaintiff layeth to his charge. The special issue then must be that, where special matter being alleged by the defendant for his defence, both the parties join thereupon, and so grow rather to a demurrer, if it be *quaestio juris*, or to trial by the jury, if it be *questio facti*.

IS'SUE. The act of passing out; exit; egress; or passage out.

Unto the Lord belong the issues of death.

Psalms.

Let us examine what bodies touch a moveable whilst in motion, as the only means to find an issue out of this difficulty. *Digby on Bodies.*

We might have easily prevented those great returns of money to France; and, if it be true the French are so impoverished, in what condition must they have been, if that issue of wealth had been stopped?

Swift.

Event; consequence.

Spirits are not finely touched,

But to fine issues.

Shakspeare, Measure for Measure.

If I were ever fearful
To do a thing, where I the issue doubted,

Whereof the execution did cry out
Against the non-performance, 'twas a fear
Which oft infects the wisest.

Id. Winter's Tale.

But let the issue correspondent prove
To good beginnings of each enterprize.

Fairfax.

If things were cast upon this issue, that God should never prevent sin till man deserved it, the best would sin, and sin for ever. *South.*

The wittiest sayings and sentences will be found the issues of chance, and nothing else but so many lucky hits of a roving fancy. *Id.*

Our present condition is better for us in the issue, than that uninterrupted health and security that the Atheist desires. *Bentley.*

Termination; conclusion.

He hath preserved Argalus alive, under pretence of having him publicly executed after these wars, of which they hope for a soon and prosperous issue. *Sidney.*

What issue of my love remains for me!
How wild a passion works within my breast!
With what prodigious flames am I possest!

Dryden.

Homer, at a loss to bring difficult matters to an issue, lays his hero asleep, and this solves the difficulty. *Broome.*

Sequel deduced from premises.

I am to pray you not to strain my speech
To grosser issues, nor to larger reach,
Than to suspicion. *Shakspeare, Othello.*

A fontanel; a vent made in a muscle for the discharge of humors.

This tumour in his left arm was caused by strict binding of his issue. *Wiseman*

Evacuation.

A woman was diseased with an issue of blood. *Matt. ix. 2.*

Progeny; offspring.

This good king shortly without issue died,
Wherof great trouble in this kingdom grew
That did herselfe in sondry parts divide,
And with her powre her own selfe overthrew. *Spenser, Faerie Queene.*

O nation miserable!

Since that the truest issue of thy throne,
By his own interdiction stands accurst. *Shakspeare, Macbeth.*

Nor where Abassin kings their *issue* guard,
Mount Amara, though this by some supposed
True Paradise, under the Aethiop line
By Nilus' head. *Milton's Paradise Lost.*

This old peaceful prince, as Heaven decreed,
Was blessed with no male *issue* to succeed.

Dryden's Aeneid.

The frequent productions of monsters, in all the
species of animals, and strange *issues* of human
birth, carry with them difficulties, not possible to
consist with this hypothesis. *Locke.*

ISSUE, *v. n.* From the noun; Fr. *issuë*; Ital.
uscire.

To come out; to pass out of any place.

Waters *issued* out from under the threshold of the
house. *Ezek.*

From the utmost end of the head branches there
issued out a gummy juice. *Raleigh's History.*

Waters *issued* from a cave. *Milton.*

Wild shrieks have *issued* from the hollow tombs;
Dead men have come again and walked about.

Blair's Grave.

Ere Pallas *issued* from the thunderer's head,
Dulness o'er all possessed her ancient right.

Pope.

To make an eruption; to break out.

Three of master Ford's brothers watch the doors
with pistols, that none should *issue* out, otherwise
you might slip away. *Shakspeare.*

See that none hence *issue* forth a spy. *Milton.*

Haste, arm your Ardeans, *issue* to the plain;
With faith to friend, assault the Trojan train.

Dryden.

At length there *issued* from the grove behind,
A fair assembly of the female kind. *Id.*

A buzzing noise of bees his ears alarms;
Straight *issue* through the sides assembling swarms. *Id.*

Full for the port the Ithacensians stand,
And furl their sails, and *issue* on the land.

Pope's Odyssey.

Then *issues* forth the storm with sudden burst,
And hurls the whole precipitated air
Down in a torrent. *Thomson.*

To proceed as an offspring.

Of thy sons that shall *issue* from thee, which thou
shalt beget, shall they take away. *2 Kings xx. 18.*

To be produced by any fund.

These alterages *issued* out of the offerings made to
the altar, and were payable to the priesthood.

Ayliffe's Parergon.

To run out in lines.

Pipes made with a belly towards the lower end,
and then *issuing* into a straight concave again.

Bacon.

ISSUE, *v. a.*

To send out; to send forth.

A weak degree of heat is not able either to digest
the parts or to *issue* the spirits.

Bacon's Natural History.

The commissioners should *issue* money out to no
other use. *Temple.*

To send out judicially or authoritatively.

This is the more frequent sense. It is com-
monly followed by a particle, *out* or *forth*.

If the council *issued* out any order against them,
or if the king sent a proclamation for their repair to
their houses, some noblemen published a protestation.

Clarendon.

Deep in a rocky cave he makes abode,
A mansion proper for a mourning god:
Here he gives audience, *issuing* out decrees
To rivers, his dependent deities. *Dryden.*

In vain the master *issues* out commands,
In vain the trembling sailors ply their hands:
The tempest unforeseen prevents their care. *Id.*
They constantly wait in court to make a due re-
turn of what they have done, and to receive such
other commands as the judge shall *issue* forth.

Ayliffe's Parergon.

ISSUES, in surgery, are small ulcers made de-
signedly by the surgeon in various parts of the
body, and kept open by the patient, for the
preservation and recovery of his health.

ISSUELESS,

I have done sin,
For which the Heavens, taking angry note,
Have left me *issueless*. *Shakspeare. Winter's Tale.*
Carew, by virtue of this entail, succeeded to Hugh's
portion, as dying *issueless*.

Carew's Survey of Cornwall.

ISSUS, a town of Cilicia in Natolia, now
called Ajazzo, with a harbour on the Levant Sea,
a little north of Scanderoon. Near this place, in
a difficult pass between the mountains and the
sea, Alexander the Great fought his second great
battle with Darius. The great cause of the de-
feat which the Persians here received was the
bad generalship of their monarch, who led his
numerous forces into a narrow place, where they
had not room to act. Alexander was so much
surprised when he first received the news that
Darius was behind him, that he could scarcely
believe it to be true; but when he was thoroughly
satisfied of the fact, and that Darius had again
passed the river Pinarus, he called a council of
war, wherein he exhorted them to remember their
former victories; and that they, who were
always conquerors, were about to contend with
a nation accustomed to defeat. He further
observed that Darius seemed to be infatuated,
since he had with such expedition quitted an
open and champaign country, where his num-
bers might have acted with advantage, to fight in
a place enclosed, where the Macedonian phalanx
might be well drawn up, and where his numbers
could only incommodate him. He then made the
necessary dispositions for repassing the moun-
tains, posted guards where he found them neces-
sary, and then commanded his troops to refresh
themselves, and to take their rest till morning.

At break of day he began to repass the moun-
tains, obliging his forces to move in close order
where the road was narrow, and to extend them-
selves as they had more room, the right wing
keeping always close to the mountain, and the
left to the sea-shore. On the right there was a
battalion of heavy armed troops, besides the
targeteers under the command of Nicanor the
son of Parthenio. Next these, extending to the
phalanx, were the corps of Cœnus and Perdiccas;
and on the left the respective bodies commanded
by Ainyntas, Ptolemy, and Meleager. The foot
appointed to support them were commanded by
Craterus; but the whole left wing was committed
to Parmenio, with strict orders not to decline from
the sea-shore, lest the Persians should surround
them. Darius ordered 20,000 foot, and 30,000
horse to retire, finding that he already wanted
room to draw up the rest. His first line con-
sisted of 30,000 Greek mercenaries, having on
their right and left 60,000 heavy-armed troops,

being the utmost the ground would allow. On the left, towards the mountain, he posted 20,000 men, which, from the hollow situation of the place, were brought quite behind Alexander's right wing. The rest of his troops were formed into close and useless lines behind the Greek mercenaries, to the number in all of 600,000 men. When this was done he suddenly recalled the horse who had retired, sending part of them to take post on his right against the Macedonians commanded by Parmenio; and the rest he ordered to the left towards the mountain: but, finding them unserviceable there, he sent the greatest part of them to the right; and then took upon himself, according to the custom of the Persian kings, the command of the main body. As soon as Alexander perceived that the weight of the Persian horse was disposed against his left wing, he despatched the Thessalian cavalry thither, and supplied their place on the right by some brigades of horse from the van and light-armed troops. He also made such dispositions, that, notwithstanding the advantage of the hollow mountain, the Persians could not surround him. But, as these precautions had considerably weakened the centre of his army, he ordered those advanced posts on the enemy's left, of which he was most apprehensive, to be attacked at the very beginning of the combat; and, when they were easily driven from them, he recalled as many troops as were necessary to strengthen his centre. When all things were in order, Alexander gave strict command that his army should march very slowly. As for Darius, he kept his troops fixed in their posts, and in some places threw up ramparts; whence the Macedonians rightly observed, that he thought himself already a prisoner. Alexander, at the head of the right wing, engaged first, and, without any difficulty, broke and defeated the left wing of Darius. But, endeavouring to pass the Pinarus after them, his troops in some measure losing their order, the Greek mercenaries fell upon them in flank, and Ptolemy, the son of Seleucus, and 120 Macedonians of rank, were killed on the spot. But the foot next to Alexander's right wing coming in seasonably to its relief, fell upon the mercenaries in flank, amongst whom a dreadful carnage was made; they being in a manner surrounded by the horse and light-armed troops, which at first pursued the left wing, and the foot that now passed the river. The Persian horse on the right still fought gallantly; but when they were informed of the rout of their left wing and of the destruction of the Greek mercenaries, and that Darius himself had fled, they began to break, and betake themselves to flight also. The Thessalian cavalry pursued them close at their heels; and, the narrow craggy roads incommoding them exceedingly, vast numbers perished. Darius fled, soon after the left wing was broken, in a chariot with a few of his favorites; but, the road becoming rocky and narrow, he quitted it, and, mounting a horse, rode all night: his chariot, in which were his cloak and his bow, fell into the hands of Alexander, who carried them back to his camp. Diodorus informs us, that Alexander looked every where about for Darius; and, as soon as he discovered him, with

his handful of guards attacked him and the flower of the Persian army that was about him; being as desirous of obtaining this victory by his personal valor, as of subduing the Persian empire by the courage of his soldiers. But when Oxathres, the brother of Darius, saw Alexander's design, and how fiercely he fought to accomplish it, he threw himself, with the horse who were about him, between his brother's chariot and the enemy, where an obstinate fight was maintained till the dead bodies appeared like an entrenchment about the chariot of Darius. Many of the Persian nobility were slain, and Alexander himself was wounded in the thigh. At last the horses in the chariot of Darius started, and became so unruly, that the king himself was forced to take the reins; the enemy, however, pressed so hard upon him, that he was constrained to call for another chariot, and mounted it in great danger. This was the beginning of the rout, which soon after became general. According to this author, the Persians lost 200,000 foot, and 10,000 horse; the Macedonians 300 foot and 150 horse. Justin informs us that the Persian army consisted of 400,000 foot, and 100,000 horse. He says that both the kings were wounded; and that the Persians still fought gallantly when their king fled, but that they afterwards were speedily and totally routed: he is very particular as to their loss, which, he says, amounted to 61,000 foot, 10,000 horse, and 40,000 taken prisoners; of the Macedonians, he says, there fell no more than 130 foot and 150 horse. Curtius says that of the Persians there fell 100,000 foot, and 10,000 horse; that of Alexander's army 501 were wounded; thirty-two foot and 150 horse killed. He adds, *Tantulo impendo ingens victoria stetit, 'So small was the cost of so great a victory.'*

ISTHMIA, or the ISTHMIAN GAMES, one of the four solemn games which were celebrated every fifth year in Greece. They had their name from the isthmus of Corinth, where they were celebrated. In their first institution, according to Pausanias, they consisted only of funeral rites and ceremonies in honor of Melicertes: but Theseus afterwards, as Plutarch informs us, in emulation of Hercules, who had appointed games at Olympia in honor of Jupiter, dedicated those to Neptune, his reputed father, who was regarded as the particular protector of the isthmus and commerce of Corinth. The same trials of skill were exhibited here as at the other three sacred games; and particularly those of music and poetry. These games, in which the victors were only rewarded with garlands of pine-leaves, were celebrated with great magnificence and splendor as long as paganism continued to be the established religion of Greece; nor were they omitted even when Corinth was sacked and burnt by Mummius the Roman general; at which time the care of them was transferred to the Sicyonians, but was restored to the Corinthians when their city was rebuilt.

ISTHMUS, n. s. Lat. *isthmus*. A neck of land joining a peninsula to the continent.

There is a castle strongly seated on a high rock, which joineth by an *isthmus* to the land, and is impregnably fortified.

Sandys's Travels.

The Assyrian empire stretcheth northward to that *isthmus* between the Euxine and the Caspian seas.

Brewer's on Languages.

The foremost of the base half blind appears;
And where his broad way in an *isthmus* ends,
There he examines all his passengers,
And those who ought not 'scape he backward sends.

Fletcher's Purple Island.

O life, thou nothing's younger brother!
Thou weak-built *isthmus*, that dost proudly rise
Up betwixt two eternities,
Yet canst not wave nor wind sustain;
But broken and o'erwhelmed the ocean meets again.

Cowley.

Cleomenes thinking it more advisable to fortify,
not the *isthmus*, but the mountains, put his design in
execution.

Creath.

Our church of England stands as Corinth between
two seas, and there are some busy in cutting the *isth-*
mus, to let in both at once upon it.

Stillingfleet.

Placed on this *isthmus* of a middle state,
A being darkly wise, and rudely great.

Pope.

An *ISTHMUS* is a narrow neck which joins two continents, or separates two seas. See *PENIN-*
SULA. The most celebrated isthmuses are, that of Panama or Darien, which joins North and South America; that of Suez, which connects Asia and Africa; that of Corinth, or Peloponnesus, in the Morea; that of Crim Tartary, otherwise called Taurica Chersonesus; that of the peninsula Romania, and Erisso, or the isthmus of the Thracian Chersonesus, twelve furlongs broad, being that which Nervae undertook to cut through. The ancients had several designs of cutting the isthmus of Corinth, which is a rocky hillock, about ten miles over; but they were all in vain, the invention of sluices being not then known. There have been attempts too for cutting the isthmus of Suez, to make a communication between the Red Sea and the Mediterranean; but these also failed; and, in one of them, a king of Egypt is said to have lost 120,000 men.

ISTRIA, a peninsula of Austrian Illyria, constituting its southern division; formed by the gulfs of Trieste and Fiume, and bounded on the north by Carniola. It is situated between the forty-fifth and forty-sixth degrees of latitude, and was formerly divided into Venetian and Austrian Istria; but, at the peace of Campo Formio, the whole was given to the empire. It was afterwards indeed, during some years, in the hands of Buonaparte; but was restored to Austria in 1814. It comprises the districts of Cape d'Istria and Rovigne in the circle of Trieste, and of Istria in the circle of Fiume.

The territorial extent of Istria is about 1600 square miles, of rich fertile country. The oil is accounted superior to that of Spain and Sicily; and the fisheries of tunnies and anchovies are highly productive; but the supply of salt is inadequate, and quantities of the fish are allowed to putrefy along the coast. The marble and stone of Istria are much prized for building in the north-east of Italy. Population about 140,000. The chief town is Rovigno. See *ILYRIA*.

IT, pronoun. *Sax. þit.*

The neutral demonstrative. Used in speaking of things. For it, our ancestors used he, as the neutral pronoun; and for its they used his. Thus,

in the accidence, a noun adjective is that which cannot stand by *himself*, but requireth another word to be joined with him to show his signification.

Nothing can give that to another which it hath not itself.

Bramhall against Hobbes.

Will our great anger learn to stoop so low?
I know it cannot.

Coultrey.

Tell me, O tell, what kind of thing is wit,

Thou who master art of it.

Id.

His son, it may be, dreads no harm;
But kindly waits his father's coming home.

Flatmore.

The time will come, it will, when you shall know
The rage of love.

Dryden.

How can I speak? or how, sir, can you hear?

Imagine that which you would most deplore,
And that which I would speak, is it or more.

Id.

A mind so furnished, what reason has it to a-

quiesce in its conclusions?

Locke.

The glory which encompassed them covered the
place, and darted its rays with so much strength, that
the whole fabriek began to melt.

Addison.

If we find a greater good in the present constitution, than would have accrued either from the total privation of it, or from other frames and structures, we may then reasonably conclude, that the present constitution proceeded from an intelligent and good being, that formed it that particular way out of choice.

Bentley.

The design, it seems, is to avoid the dreadful im-
putation of pedantry.

Swift.

It is used absolutely for the state of a person
or affair.

I wolde have caught it up anone:

It fled: and fro me was ygone.

As I followed, and it forth went,

Downe by a floury greene it went,

Ful thicke of grasse.

Chaucer. Boke of the Duchesse.

How is it with our general?

—Even so

As with a man by his own alms impoisoned,

And with his charity slain.

Shakspeare. Coriolanus.

What say you—a pasty, it shall and it must,
And my wife little Kitty is famous for crust.

Goldsmith.

Hues which have words, and speak to ye of heaven,
Float o'er this vast and wondrous monument,
And shadow forth its glory.

Byron. Childe Harold.

It is used for the thing; the matter; the affair.

It's come to pass,

That tractable obedience is a slave

To each incensed will.

Shakspeare. Henry VIII.

It is sometimes expressed by 't.

He rallied, and again fell to 't;

For catching foe by nearer foot,

He lifted with such might and strength,

As would have hurled him thrice his length.

Hudibras.

It is used ludicrously after neutral verbs, to
give an emphasis.

If Abraham brought all with him, it is not proba-
ble that he meant to walk it back again for his plea-
sure.

Raleigh.

The Lacedemonians, at the straits of Thermopylae, when their arms failed them, fought it out with
their nails and teeth.

Dryden.

I have often seen people lavish it profusely in
tricking up their children, and yet starve their minds.

Locke.

The mole courses *it* not on the ground, like the rat or mouse, but lives under the earth. *Addison.*

Whether the charmer sinner *it*, or saint *it*.

If folly grows romantick, I must paint *it*. *Pope.*

Sometimes applied familiarly, ludicrously, or rudely to persons.

Let us after him,

Whose care is gone before to bid us welcome :
It is a peerless kinsman. *Shakspeare. Macbeth.*

Do, child, go to *its* grandam, child :

Give grandam kingdom, and *its* grandam will

Give it up to him. *Id. King John.*

It is sometimes used of the first or second person, sometimes of more. This mode of speech, though used by good authors, and supported by the *il y a* of the French, has yet an appearance of barbarism.

Who was't came by ?

—'Tis two or three, my lord, that bring you word
Macduff is fled to England. *Shakspeare. Macbeth.*
City,

'Tis I, that made thy widows. *Id. Coriolanus.*
'Tis these that early taint the female soul. *Pope.*

ITALIAN LANGUAGE, the language spoken in Italy. See LANGUAGE. This is derived principally from the Latin ; and, of all the languages formed from it, there is none which carries with it more visible marks of its original than the Italian. It is accounted one of the most perfect among the modern tongues. It is complained, indeed, that it has too many diminutives and superlatives, or rather augmentatives, but without any great reason ; for if those words convey nothing farther to the mind than the just idea of things, they are no more faulty than our pleonasm and hyperboles. The language corresponds to the genius of the people, who are slow and thoughtful : accordingly, their language runs heavily, though smoothly ; and many of their words are lengthened out to a great degree. They have a great taste for music ; and, to gratify their passion this way, have altered many of their primitive words ; leaving out consonants, taking in vowels, softening and lengthening out their terminations, for the sake of the cadence. Hence the language is rendered extremely musical, and succeeds better than any other in operas and some parts of poetry : but it fails in strength and nervousness ; and a great part of its words, borrowed from the Latin, become so far disguised, that they are not easily known. The great num-

ber of states into which Italy was (till of late divided, has given rise to a great number of different dialects in the language ; the Tuscan is usually preferred to the other dialects, and the Roman pronunciation to that of the other cities ; whence the Italian proverb, ‘ Lingua Toscana in bocca Romana.’ The Italian is generally pretty well understood throughout Europe ; and is frequently spoken in Germany, Poland, and Hungary. At Constantinople, in Greece, and in the ports of the Levant, the Italian is used as commonly as the language of the country : indeed, in those places it is not spoken so pure as in Tuscany, but is corrupted with many of the proper words and idioms of the place ; whence it takes a new name, and is called Frank Italian.

ITALIAN REPUBLIC, a name given by Buonaparte and the deputies from the Cisalpine Consulta, who met with him at Lyons in 1801, to that part of Italy which, in October 1797, was erected into a democratic state, under the title of the Cisalpine Republic, and which was acknowledged as an independent state by the emperor at the treaties of Campo Formio and Luneville, as well as by most other European powers since. Some additions of territory were afterwards made to the Cisalpine republic, particularly the Valteline, Chiavenna, and Bormio, annexed in November 1797 ; the four Italian bailliwick ; that part of the Veronese which by the treaty of Campo Formio had been ceded to the emperor, whereby the whole of the Veronese became included in the Cisalpine republic ; and the ci-devant dominions of the prince of Parma ; but all these additional territories were by no means sufficient to justify the title given to it of an Italian Republic. When Buonaparte fell, this republic fell with him.

ITALICA, in ancient geography, a town of Brëtica, in Spain, built by Scipio Africanus, after finishing the Spanish war, for the reception of the wounded soldiers. At first it was a municipium ; afterwards a colony. It was the birthplace of the emperors Trajan and Adrian, and of the poet Silius Italicus.

ITALUS, an Arcadian prince, who erected a kingdom in Italy to which he gave name, and was deified after his death. Æneas invokes him among the Italian deities. Virg. Æn. vii, 178.

I T A L Y.

ITALY, one of the finest and most celebrated countries of Europe, lying between 7° and 10° E. long., and between 37° and 46° lat. N. On the N. N. W., and north-east, it is bounded by France, Switzerland, the country of the Grisons, and Germany ; on the east by the Adriatic Sea ; and on the south and west by the Mediterranean ; its figure bearing some resemblance to a boot. Its length from Aosta at the foot of the Alps in Savoy, to the utmost verge of Calabria, is about 600 miles ; but its breadth is very unequal, being in some places nearly 400 miles, in others not above twenty-five or thirty.

1. Of ancient Italy.—This country, like most

others, was anciently divided into a great number of petty states and kingdoms. Afterwards when the Gauls settled in the western, and many Greek colonies in the eastern parts, it was divided, with respect to its inhabitants, into three great parts, viz. Gallia Cisalpina, Italy properly so called, and Magna Grecia. The most western and northern parts of Italy were in great part possessed by the Gauls, and hence took the name of Gallia, with the epithets of Cisalpina and Citerior, because they lay on the side of the Alps next to Rome ; and Togata, with relation to the Roman gown or dress which the inhabitants used ; but this last epithet is of a much later

date than the former. This appellation was antiquated in the reign of Augustus, when the division of Italy into eleven provinces, introduced by him, took place. Hence the name of Cisalpine Gaul frequently occurs in authors who flourished before, and scarce ever in those who wrote after his reign. This country extended from the Alps and the river Varus, parting it from Transalpine Gaul to the river Aesus; or, as Pliny has it, to Ancona, in the ancient Picenum. On the north it was divided from Rhætia by the Alpes Rhæticae; and from Illyricum by the river Formio: but on this side the borders of Italy were, in Pliny's time, extended to the river Arisia in Istria. On the south it reached to the Ligurian Sea, and the Appennines parting it from Etruria; so that under the common name of Cisalpine Gaul were comprehended the countries lying at the foot of the Alps, called by Pliny and Strabo the Subalpine countries, Liguria, Gallia Cispadana, and Transpadana. Italy, properly so called, extended, on the coast of the Adriatic, from the city of Ancona to the river Trento, now the Fortore; and on the Mediterranean, from the Mareca to the Silarus, now the Sele. Magna Græcia comprised Apulia, Lucania, and the country of the Brutii. It was called Greece, because most of the cities on the coast were Greek colonies. The inhabitants gave it the name of Great, not as if it was larger than Greece, but merely out of ostentation, as Pliny informs us.

All these countries were inhabited by a great number of different nations settled at different times, and from many different parts. The names of the most remarkable of them were the Aborigines, or those whose origin was utterly unknown, and consequently were thought to have none; the SABINES, HETRURIANs OF TUSCANS, the UMBRI, SAMNITES, CAMPANI, APUli, CALABRI, LUCANI, the BRUTII, and the LATINS. From a colony of the latter proceeded the Romans, who gradually subdued all these nations, one after another, and held them in subjection for upwards of 700 years. See ROME, and the above articles in their order.

Italy was anciently known by the names of Saturnia, Oenotria, Hesperia, and Ausonia. It was called Saturnia from Saturn; who, being driven out of Crete by his son Jupiter, is supposed to have taken refuge here. The names of Oenotria and Ausonia are borrowed from its ancient inhabitants the Oenotrians and Ausones, and that of Hesperia, or Western, was given it by the Greeks, from its situation with respect to Greece. The name of Italia or Italy, which in process of time prevailed over all the rest, is by some derived from Italus, a king of the Siculi; by others from the Greek word Ἱταλος, an ox; this country abounding, by reason of its rich pastures, with oxen of an extraordinary size and beauty. All these names were originally peculiar to particular provinces of Italy, but afterwards applied to the whole country.

2. Italy, from the time of Odoacer until the death of Theodoric.—The nations of Italy were originally brave, hardy, temperate, and well skilled in the art of war; and the Romans much more so than the rest. Their subjection to Rome,

however, mured them to slavery; and the vast wealth which was poured into the country from all parts of the world, during the time of the Roman prosperity, corrupted their manners, and made them degenerate from their former valor. Of this degeneracy the barbarous nations of the north took advantage, and invaded the empire in innumerable multitudes. Though often repelled, they constantly returned; and it was found necessary to take great numbers of them into the Roman service, in order to defend the empire against the rest of their countrymen. In the year 476 the Heruli, presuming on the services they had done the empire, demanded a third part of the lands of Italy; and, being refused, chose Odoacer, a man of low birth, but of great valor and experience, for their king; and, having totally destroyed the remains of the Roman empire, proclaimed Odoacer king of Italy. The new monarch, however, did not think proper to alter the Roman form of government, but suffered the people to be governed by the senate, consuls, &c., as before.

Odoacer enjoyed his dignity in peace till 488, when Zeno, emperor of Constantinople, being pressed by Theodoric king of the Ostrogoths, advised him to turn his arms against Odoacer, whom he could easily overcome, and thus make himself sovereign of one of the finest countries in the world. Theodoric now, therefore, set out for Italy, attended by an immense number of people, carrying with them their wives, children, and effects, on waggons. Several Romans of great distinction attended him, while many of his countrymen chose to remain in Thrace, where they became a separate nation. The Goths, being destitute of shipping, were obliged to go round the Adriatic. This march was performed in the depth of winter; and, during the whole time, a violent famine and plague raged among them. They were also opposed by the Gepidae and Sarmatians; but at last, having defeated these enemies, and overcome every other obstacle, they arrived in Italy in 489. Theodoric advanced to the river Sontius (now Zonzo), near Aquileia, where he halted to refresh his troops. Here he was met by Odoacer at the head of a very numerous army, but composed of many different nations commanded by their respective chiefs, and without sufficient zeal for the common cause. Theodoric, therefore, gained an easy victory, and took their camp. Odoacer on this retired to the plains of Verona, and encamped at a small distance from the city; but Theodoric pursued him closely, and soon forced him to a second engagement. The Goths obtained another victory; but it cost them dear. Odoacer's men made a much firmer resistance than before, and great numbers fell on both sides. The victory, however, was so far decisive, that Odoacer was obliged to shut himself up in Ravenna; so that Theodoric, having now no enemy to oppose him in the field, besieged and took several important places, and, among the rest, Milan and Pavia. At the same time Tufa, commander of Odoacer's forces, deserted to the enemy with the greatest part of his troops, and was immediately employed in conjunction with a Gothic officer in pursuit of his sovereign.

Odoacer had left Ravenna, and was advanced as far as Faenza, when he was closely besieged by Tufa; but the traitor, declaring again for his old master, joined him with all his troops, and delivered up several officers that had been appointed by Theodoric to serve under him. These were sent in irons to Ravenna; and Odoacer, being joined by Frederic, one of Theodoric's allies, with a considerable body of troops, once more advanced against his enemies. He recovered all Liguria, took the city of Milan, and at last besieged Theodoric himself in Pavia. The Goths, having brought all their families and effects along with them, were greatly distressed for want of room; and must have undoubtedly submitted, if their enemies had continued to agree among themselves. But the quarrels of his followers proved the ruin of Odoacer. Theodoric, finding that the enemy remitted the vigor of their operations, applied for succours to Alaric, king of the Visigoths, who had settled in Gaul. As the Visigoths and Ostrogoths were originally one nation, and the Visigoths had received among them some years before a great number of Ostrogoths under the conduct of Videmer cousin-german to Theodoric, the supplies were readily granted. The inaction of the enemy gave these succours time to arrive; upon which Theodoric instantly joined them, and marching against his enemies, gave them a total overthrow. Odoacer again took refuge at Ravenna, but was closely besieged by Theodoric in 490. The siege lasted three years, during which Odoacer defended himself with great bravery, and greatly annoyed the besiegers. Theodoric, however, impatient of delay, leaving part of his army to blockade the city, marched with the rest against the strong holds which Odoacer had garrisoned. All these he reduced with little difficulty; and in 492 returned to the siege of Ravenna. The besieged were now reduced to great straits, both by the enemy without, and a famine within, the price of wheat having risen to six pieces of gold per bushel. On the other hand the Goths were worn out with the fatigues of such a long siege; so that both parties being willing to put an end to the war, Odoacer sent John, bishop of Ravenna, to Theodoric with terms of accommodation. Jornandas informs us, that Odoacer only begged his life; which Theodoric bound himself, by a solemn oath, to grant him: but Procopius says that they agreed to live together on equal terms. This last seems very improbable: but, whatever were the terms of the agreement, it is certain that Theodoric did not keep them; for, having a few days after invited Odoacer to a banquet, he despatched him with his own hand. All his servants and relations were massacred at the same time: except his brother Arnulphus, and a few others, who had the good fortune to make their escape, and retire beyond the Danube.

By the murder of Odoacer, Theodoric, becoming master of all Italy, assumed the title of king of that country, as Odoacer had done; though, with a pretended deference to the emperor of Constantinople, he sent messengers asking liberty to assume that title, after he had actually taken it. Having secured his new kingdom, by foreign alliances, Theodoric applied himself to legislation, and enacted many salutary laws.

To stop the incursions of the barbarians, he chose Ravenna for his chief residence, and the provinces were governed by the same magistrates that had presided over them in the times of the emperors, viz. the consulares, correctores, and praesides. He also sent, according to the custom of the Goths, inferior judges, distinguished by the name of counts, to each city, to administer justice, and decide disputes. Besides these officers, he also appointed not only in the principal cities, but in every small town and village, inferior magistrates of known integrity; no appeals to distant tribunals being allowed but in matters of great importance. Under Theodoric Italy enjoyed as great happiness as had been experienced under the very best emperors. He contented himself with the same tributes and taxes that had been levied by the emperors; but, on all occasions of public calamity, was much more ready to remit them than they had been. Nor did he treat the natives as those of the other Roman provinces were treated by the barbarians who conquered them. These stripped the ancient proprietors of their lands, estates, and possessions, dividing them among their chiefs; and giving to one a province with the title of duke, to another a frontier district with the title of marquis: to some a city with that of count; to others a castle or village with the title of baron. But Theodoric, who piqued himself upon governing after the Roman manner, and observing the Roman laws and institutions, left every one in the full enjoyment of his ancient property. As to religion, though himself an Arian, he allowed his subjects to profess the orthodox doctrine without molestation. In short, his many virtues, and the happiness of his subjects, are celebrated by all the historians. The end of his reign, however, was sullied by the death of the celebrated philosopher Boethius, and his father-in-law Symmachus. They were both beheaded in Pavia, on an unjust charge of treason; and scarce was the sentence executed when the king repented, and abandoned himself to the most pungent sorrow. The excess of his grief is said to have affected his brain; for not long after, the head of a large fish being served up to supper, he fancied it to be that of Symmachus threatening him in a most ghastly manner. Seized with horror and amazement, he was carried to his bed-chamber, where he died in a few days, on the 2d of September, 526.

2. Italy, from the death of Theodoric to the capture of Rome by Totila.—After the death of Theodoric the kingdom devolved to Athalaric his grandson, who being only eight years of age, his mother Amalasuntha took upon her the regency. Her administration was equally upright with that of Theodoric; but the barbarians, of whom her court was composed, finding fault with the encouragement she gave to learning, forced her to abandon the education of her son. The latter thereupon plunged into every vice, and behaved to his mother with the greatest arrogance, until he at last commanded her to retire from court. Amalasuntha on this exerting her authority, seized three of the ringleaders of the sedition, whom she confined in the most remote parts of Italy, and wrote to the emperor Justinian, asking leave to take refuge in his dominions. The emperor

readily complied with her request, offering her a palace at Durazzo; but the queen having in the meantime caused the chiefs of the revolt to be put to death, and no new disturbances arising, she declined the emperor's offer. In 533, Athalaric having ruined his health by his debaucheries, Amalasuntha, to avoid the calamities with which Italy was threatened in case of his death, formed a design of delivering it up to Justinian: but before this scheme was ripe for execution, her grandson died; upon which the queen took for her colleague Theodotus her cousin; obliging him, however, to swear that he would suffer her to enjoy and exercise her former power. This he readily did, but soon forgot the contract; and, when she took the liberty to remind him of it, caused her to be seized and confined in an island of the lake Bolsena. Fearing, however, that this violence would be resented by Justinian, he obliged her to write to him that no injury or injustice had been done her, and sent with this letter one written by himself to the emperor, filled with heavy complaints against Amalasuntha. But Justinian, far from giving credit to what Theodotus urged against her, openly espoused her cause, and assured her of his protection. Before his letter could reach her, she was strangled in a bath; on hearing of which Justinian resolved upon an immediate war with the Goths. To facilitate the enterprise he bribed the Franks, to assist him with a large sum of money, and they promised the emperor great exertions in return. But while Justinian's arms were employed against the Goths, Thierri, the eldest son of Clovis, seized on several cities of Liguria, the Alpes Cottiae, and great part of the late territory of Venice for himself. Justinian, however, found sufficient resources in the valor of Belisarius, notwithstanding the defection of his treacherous allies. This celebrated general was vested with supreme military command, and an absolute civil authority. His instructions were, to pretend a voyage to Carthage, but to make an attempt upon Sicily; and, if he thought he could succeed, to land there; otherwise to sail for Africa. Mundus, commander of the troops in Illyricum, was ordered to march into Dalmatia, which was subject to the Goths, and attempt the reduction of Salone. This he accomplished without difficulty, and Belisarius made himself master of Sicily sooner than he himself had expected. The island was reduced on the 31st of December 535; upon which Belisarius passed over to Reggio and Rome; the provinces of Abrutium, Lucania, Puglia, Calabria, and Samnum readily submitting to him. Naples stood a siege; but Belisarius entered through an aqueduct, and gave it up to be plundered.

Theodotus, having neither capacity nor inclination to carry on the war, now sent ambassadors to Justinian with proposals of peace. He agreed to renounce all pretensions to Sicily; to send the emperor yearly a crown of gold weighing 300lbs., and to supply him with 3000 men whenever he should demand them. Several other articles, contained in the proposal, amounted to the owning of Justinian for his lord, and that he held the crown of Italy through his favor. As he apprehended, however, that these offers might

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not yet be satisfactory, his ambassadors were desired to inform Justinian, that he was willing to resign the kingdom, and content himself with a suitable pension. But he obliged them by an oath not to mention this proposal, till they found that the emperor would not accept of the other. The first proposals were accordingly rejected, as they had supposed; upon which the ambassadors produced the second, signed by Theodotus himself, who, in his letter to the emperor, told him, among other things, that being unacquainted with war, and addicted to the study of philosophy, he preferred his quiet to a kingdom. Justinian transported with joy, and imagining the war already finished, answered the king in a most obliging manner, extolling his wisdom, and giving him, besides what he demanded, the greatest honors of the empire. The agreement being confirmed by mutual oaths, lands were assigned to Theodotus, and orders were despatched to Belisarius to take possession of Italy in his name.

In the mean time a body of Goths having entered Dalmatia, with a design to recover the city of Salone, were encountered by an inferior army of Romans, commanded by the son of Mundus. The Goths proved victorious, the young Roman general was killed, and most of his army cut in pieces. Mundus marched against the enemy to revenge the death of his son; but met with no better success, his troops being defeated, and himself killed in the engagement. Upon this the Romans abandoned Salone and all Dalmatia: and Theodotus, elated with his success, refused to fulfil the articles of the treaty. Justinian despatched Constantianus, an officer of great valor and experience, into Illyricum, with orders to raise forces there, and to enter Dalmatia; at the same time he wrote to Belisarius to pursue the war with the utmost vigor. The Goths were now reduced to the greatest straits. Constantianus drove them out of Dalmatia; and Belisarius, having reduced all the provinces which compose the kingdom of Naples, advanced towards Rome. The chief men of the nation, finding their king incapable of preventing the impending ruin, assembled without his consent, and despatched ambassadors to Belisarius with proposals of peace. These proposals were rejected; and Belisarius returned for answer, that he would not hearken to terms, nor sheath his sword, till Italy was re-annexed to the empire to which it belonged. The Goths, finding Theodotus still inactive, unanimously deposed him, and chose for their leader one Vitiges, a brave man, but of mean descent. Theodotus fled to Ravenna; but the new king despatched a messenger after him, who overtook him, and cut off his head.

Vitiges commenced his government by writing a circular letter, in which he exhorted his countrymen to exert their ancient courage in defence of their lives and liberties. He then marched, with what forces he could collect towards Rome; but, thinking himself unable to defend that city, abandoned it to Belisarius, and, arriving at Ravenna, was joined by the Goths from all parts. Belisarius in the mean time entered Rome without opposition on the 10th of December 537;

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the Gothic garrison retiring by the Porta Flaminia, while he entered by the Porta Asinaria. Leudaris, governor of the city, who staid behind, was sent with the keys to the emperor. Belisarius gave orders to repair the walls and fortifications; filled the granaries with corn from Sicily, and stored the place with provisions, as if he had been preparing for a siege. Mean time Benevento, with great part of the territory of Samnium, was delivered up to him; and the cities of Narnia, Spoleto, and Perusia, revolting from the Goths, received Roman garrisons; as did most of the cities of Tuscany. Vitiges, however, having collected an army of 150,000 men, now resolved to march directly to Rome, and engage Belisarius; or lay siege to the city. Apprehending, however, that the Franks might fall upon him, he sent ambassadors to them, with offers of all the Gothic possessions in Gaul, and a considerable sum of money, provided they joined him against the emperor. The Franks, with their usual treachery, consented to the proposal, received the money and the territories agreed on, and then refused to fulfil the treaty. In the mean time Vitiges began his march to Rome, leaving behind him, in a state of hostility, all the fortified towns on the road. Belisarius, whose army, reduced by the many towns he had garrisoned, did not now amount to above 5000 men, despatched messengers to Constantianus in Tuscany; and to Bessas, a Goth, of the emperor's party, in Umbria, with orders to join him with all possible expedition; writing at the same time to the emperor himself, in the most pressing manner, for supplies. Constantianus joined him pursuant to his orders; and soon after Bessas, falling in with part of the enemy's vanguard, killed a considerable number of them, and put the rest to flight. Belisarius had built a fort upon a bridge about a mile from Rome, and placed a strong garrison in it to dispute the passage with the enemy; but the garrison, seized with a panic at the approach of the Goths, abandoned their post in the night, and fled into Campania. Early in the morning Vitiges passed over great part of his army, and marched on till he was met by Belisarius, who, knowing nothing of what had happened, came with 1000 horse to view the ground about the bridge. Greatly surprised when he found himself in the presence of the enemy, he yet nobly stood his ground, exposing himself at every part of his brave line, without his usual prudence and discretion. Being known by some fugitives, and discovered to the enemy, the whole contest was for some time for the possession of his person. At last the Goths were driven back to their camp, which the Romans with great temerity attempted to force. In this attempt, however, they met with such a vigorous resistance, that they soon abandoned the enterprise, and retired to a neighbouring eminence; whence they were forced down by the enemy, put to flight, and pursued to the gates of the city. Here they had greater danger to meet still; for those within, fearing that the enemy might enter, refused to open the gates; and in vain did Belisarius exhibit himself, and demand admittance. They had been informed by those first fled, that he was slain, and could not, it is

said, distinguish him on account of the blood and dust with which his face was covered. In this extremity, having encouraged his men to make a last effort, he put himself at their head, and attacked the enemy with such fury, that the Goths, imagining fresh troops had sallied out, began to give ground, and at last retired to their camp. The Roman general did not pursue them; but entered the city, where he was received with loud acclamations.

A few days after, Rome was closely invested by Vitiges, who destroyed the aqueducts by which water was conveyed into the city, and which had been built at an immense charge by the emperors. Belisarius, on his part, omitted nothing for his defence; until the cowardly citizens assembled in a tumultuous manner, and railed at his alleged temerity: Vitiges, to encourage this mutinous disposition, despatched ambassadors to the senate with proposals of peace. These ambassadors, however, were dismissed without any answer, and the siege was commenced with great vigor. Belisarius made a gallant defence; and in seven months is said to have destroyed 40,000 of the Goths. About this time he received a supply of 16,000 archers from the emperor. Elated with their successes, the Romans now became impatient for an engagement; and at last, notwithstanding the remonstrances of their general, forced him to lead them out against the enemy. The issue was as he anticipated. The Romans were defeated with the loss of some of their bravest officers and troops; after which they contented themselves with sallying out in small parties, which they commonly did with the greatest success. But, though the Romans had the satisfaction of thus cutting off their enemies, they were at this time grievously afflicted with a famine and plague; insomuch that the inhabitants, no longer able to bear their calamities, were on the point of forcing Belisarius to venture a second battle, when a seasonable supply of 3000 Isaurians, 800 Thracian horse, and 1300 horse of other nations, together with 500 Italians who joined them by the way, arrived at Rome. Belisarius immediately sallied out by the Flaminian gate, and fell upon the Goths, in order to give his allies time to enter by the opposite side of the city, which they did without the loss of a man. The Goths, hearing of the arrival of these troops, began to despair of becoming masters of the city; especially as the famine and plague raged with great violence in their camp. Ambassadors were therefore despatched to Belisarius with proposals of peace: but the only thing they could obtain was a cessation of arms for three months, during which time they might send ambassadors to the emperor. These negotiations, however, proved unsuccessful; and the siege was pursued with great vigor, till Vitiges received the news of the taking of Rimini by the Romans. As this city was but a day's journey from Ravenna, the Goths were so much alarmed, that they immediately raised the siege of Rome, after it had continued a year and nine days: Belisarius attacking their rear as they passed the bridge of the Tiber, and cutting great numbers of them in pieces, while others, struck with a panic, threw

themselves into the river and were drowned. Vitiges now made an attempt upon Rimini: but, while he was employed in this siege, the Romans became masters of Milan; upon which the Gothic general Uraia, was despatched with a powerful army to retake it. In the mean time, however, a supply of 7000 Roman troops arrived from the emperor, under the command of Narses, a celebrated general. The immediate consequence of this was the raising of the siege of Rimini; for Vitiges perceiving the two Roman armies coming against him, and concluding from the many fires they made that they were much more numerous than they were, fled in such haste, that he left the greatest part of his baggage behind. The success of the Romans, however, was now retarded by some misunderstanding between the two generals; so that though Belisarius made himself master of Urbignum and Urbiventum, while Narses reduced some other places, yet the important city of Milan was suffered to fall into the hands of the enemy, who massacred all the inhabitants that were able to bear arms, to the number of 300,000, and sold the women for slaves. The city was also totally demolished. This disaster made such an impression on the mind of Justinian that he immediately recalled Narses, and gave the command of his troops to Belisarius.

Vitiges, who had expected great advantages from the disagreement of the two generals, was much disappointed by the recall of Narses; and dreading the vigor of Belisarius, at the head of a formidable army, thought of engaging in alliance with some foreign prince. He applied therefore to the Lombards; but, though tempted by the offer of a large sum of money, they continued inviolably attached to the Roman interest. At last he persuaded Chosroes king of Persia to make war upon Justinian. But the Roman general pushed on the war, while the treacherous Franks, thinking both nations sufficiently weakened by their mutual hostilities, resolved to attack both, and seize upon the country for which they contended. Accordingly, Theodobert, unmindful of the oaths he had taken both to the Goths and Romans, passed the Alps at the head of 150,000, or as some writers state at the head of 200,000 men, and entered Liguria. No hostilities being committed by them on their march, the Goths concluded that they were come to their assistance; and therefore supplied them with provisions. They thus crossed the Po without opposition; and, having secured the bridge, marched towards the place where a body of Goths were encamped; who admitted them without hesitation. But they were soon convinced of their mistake; for the Franks, falling unexpectedly upon them, drove them from their entrenchments with great slaughter, and seized on their baggage and provisions. A body of Romans that lay at a small distance from the Goths, concluding that they had been defeated by Belisarius, advanced with great joy to meet him as they imagined; but the Franks, falling unawares upon them, treated them as they had done the Goths, and became masters of their camp also. Thus they acquired a very considerable booty; but their provisions being soon con-

sumed, and the country quite exhausted, vast numbers of them perished; so that Theodobert, at last was obliged to return. In his way he destroyed Genoa and several other places, and arrived in his own dominions loaded with spoil.

In the mean time Belisarius was making great progress. He took the cities of Auximum and Fasula after an obstinate siege, and invested Ravenna, the capital of the Gothic dominions in Italy. The place was defended by a numerous garrison, commanded by the king; but the siege was pushed with such vigor, that it was evident the city must at last submit; and the great successes of the Romans began to give jealousy to the neighbouring potentates. Theodobert, king of the Franks, offered to assist Vitiges with an army of 500,000 men; but Belisarius, being informed of the negotiation, sent ambassadors to the latter, reminding him of the treachery of the Franks, and assuring him that the emperor was ready to grant him honorable terms. The king on this sent ambassadors to Constantinople; but in the mean time Belisarius, to bring the citizens to terms, bribed one of them to set fire to a magazine of corn, which soon straitened them for want of provisions. But, notwithstanding this disaster, they continued to hold out, till the arrival of the ambassadors from Constantinople, who brought Vitiges very favorable terms. These were, that the country beyond the Po, with respect to Rome, should remain to the Goths; but that the rest of Italy should be yielded to the emperor, and the royal treasure of the Goths be equally divided between him and the king. To these conditions, however, Belisarius positively refused to assent. He therefore pursued the siege with increased vigor, and obliged such of his officers as were of opinion that the town could not be taken, to express their opinion in writing. The Goths were as weary of the siege as the Romans; but, fearing lest Justinian should transplant them to Thrace, formed a resolution, without the consent of the king, of surrendering to Belisarius himself, and declaring him emperor of the west. To this they were encouraged by the refusal of Belisarius to agree to the terms proposed by the emperor; whence they falsely imagined that he designed to revolt, and make himself emperor of Italy. Belisarius had no such design, but thought proper to accept of the title, to accelerate the surrender of the city; and when Vitiges discovered the plot, finding himself in no condition to oppose it, he not only commended the resolution of his people, but wrote to Belisarius, advising him to take upon him the title of king, and assuring him of his assistance. On this Belisarius pressed the Goths to surrender; which, however, they refused, till he had taken an oath that he would treat them with humanity, and maintain them in the possession of all their rights and privileges. He was then admitted into the city, where he behaved with great moderation towards the Goths; but seized on the royal treasure, and secured the person of the king. The Roman army, when it entered, appeared so very inconsiderable, that the Gothic women, on beholding it, are said to have spit in

the faces of their husbands, and to have reviled them as cowards.

But the captivity of Vitiges, and the taking of Ravenna, did not put an end to the war. Belisarius was soon after recalled to take the command of the army in the east. The Goths were greatly surprised that he should leave his new kingdom out of regard to the orders of the emperor; but after his departure chose Ildibald, a chief of great experience both civil and military, for their king. He revived the drooping spirits of his countrymen, defeated the Romans, and reduced all the province of Venetia; but was in a short time murdered, and Eraric, a Rugian, succeeded to the throne. Scarcely, however, was he invested with the sovereignty, when his subjects began to think of deposing him, and offered Totila the throne, which he accepted, upon condition that they previously despatched Eraric. This was accordingly done; after which Totila was proclaimed king of Italy in the year 542. The new monarch proved a very formidable enemy to the Romans, who every where now lost ground. They made an attempt on the city of Verona; in which they miscarried through their own avarice, having disputed about the division of the plunder till the opportunity of taking the town was lost. They were next defeated in two bloody engagements, in consequence of which the Goths made themselves masters of all the strong places in Tuscany. Thence marching into Campania and Samnium, they reduced Benevento and besieged Naples. During this last siege several detachments were sent from the king's army, which took Cumæ, and recovered all Bruttium, Lucania, Apulia, and Calabria, where they found considerable sums which had been gathered for the emperor's use. The Roman troops, in the mean time, disheartened by their losses, and deprived of those sums which should have paid their wages, refused to take the field. A considerable fleet was therefore sent by Justinian to relieve Naples; but Totila, having timely notice, manned, with incredible expedition, a great number of light vessels; which, falling unexpectedly on the emperor's fleet, took or sunk every ship, and made prisoners of almost all on board. A similar fate attended another fleet despatched from Sicily. It put to sea in the depth of winter; and, meeting with a violent storm, was driven ashore near the enemy's camp, who sunk the ships, and put the seamen and soldiers to the sword. Upon this second disaster, the Neapolitans, despairing of further relief, submitted to Totila; who granted them honorable terms, and treated them with humanity, particularly the garrison. He at first supplied them with ships to carry them to Constantinople; but having discovered their design to sail to Rome, to reinforce the garrison of that city (which they knew he was soon to besiege), he was so far from punishing them as they expected, that he furnished them with horses, waggons, and provisions, and ordered a body of Goths to escort them thither by land. Having thus become master of Naples, and most of the other Italian fortresses, Totila began to think of reducing

Rome also. He first attempted to persuade the citizens to surrender; but, finding this ineffectual, he sent a detachment of his army to reduce Otranto, and marched with the rest of his forces against the towns in the neighbourhood of 'the eternal city.' Tiber, now Tivoli, about eighteen miles from Rome, was betrayed to him; and all the inhabitants, with their bishop, were put to the sword. Several other strong holds in the vicinity he took by storm; so that Rome was in a manner blocked up by land.

Justinian, greatly perplexed by this news, recalled Belisarius from Persia. To save Rome, however, was now impossible. As soon as Belisarius arrived in Italy, finding himself unable either to relieve the towns which were besieged, or to stop the progress of the Goths, he despatched letters to Justinian, informing him, that it was impossible for him to prosecute the war: upon which the emperor ordered new levies to be made; all the veterans being engaged in Persia. In the mean time Totila pursued his good fortune; took the cities of Firmum, Asculum, Auximum, Spoleto, &c., and at length invested Rome on all sides. As he drew near the city two officers, whom Belisarius had sent into it, ventured to make a sally, thinking they should surprise the Goths; but they were themselves taken in an ambuscade, and most of their men cut in pieces. Belisarius made several unsuccessful attempts to relieve the city, and suffered so much from anxiety that he fell into a fever, and was for some time in danger of his life. The city was soon reduced to great straits; a dreadful famine ensued; and the unhappy citizens having consumed every thing that could be supposed to give them nourishment, even the grass that grew near the walls, were obliged, it is said, to feed on excrements. Many committed suicide in order to free themselves from the intolerable calamities they suffered. The rest addressed their governor Bessas, entreating him to supply them with food; or, if that was not in his power, either to give them leave to quit the city, or to terminate their miseries by putting them to death. Bessas replied, that to supply them with food was impossible; to let them go, unsafe; and to kill them impious. In the end, however, he suffered those who were so disposed to retire, upon paying him a sum of money; but most of them either died on the road, or were cut in pieces by the enemy. At last the besieged, unable to bear their accumulated miseries, began to mutiny, and four of the Isaurians, who guarded one of the gates, went privately to the camp of Totila, and offered to admit him into the city. The king received this proposal with great joy; and, sending forward four Goths of great strength and intrepidity, silently approached the gates in the night with his whole army. They were opened by the Isaurians, as they had promised; and upon the first alarm Bessas, with most of the soldiers and officers, fled. The inhabitants took sanctuary in the churches; and only sixty of them and twenty-six soldiers were killed after the city was taken. Totila, however, gave his soldiers full liberty to plunder the inhabitants, for several days together; and they left little in

the houses but naked walls. In the house of Bessas was found an immense treasure, which he had amassed during the siege, by selling to the people, at an exorbitant price, the corn which had been stored up for the garrison.

3. Italy, from the plundering of Rome by Totila, to the overthrow of the Lombard kingdom by Charlemagne.—Totila, thus become master of Italy, sent ambassadors to Justinian with respectful letters, desiring to live on the same terms with him that Theodoric had done with his predecessor Anastasius; promising in that case to respect him as his father, and to assist him when he pleased with all his forces. On the contrary, if the emperor rejected his offers, he threatened to level Rome with the ground, to put the whole senate to the sword, and to carry the war into Illyricum. The emperor returned no other answer than that he referred the whole to Belisarius, who had full power to negotiate. Upon this Totila resolved to destroy the city; and had actually thrown down a third part of the wall, when he received a letter from Belisarius, dissuading him from his intention. Having considered this letter, Totila thought proper to alter his resolution with regard to the destruction of Rome; but sent its inhabitants into Lucania, without the exception of a single person. Belisarius hearing of this immediately returned to the capital, and undertook to re-people and repair it. He cleared the ditch which had been filled by Totila, but was for the present obliged to fill up the breaches in the walls with loose stones; and in this situation the city was again attacked by the Goths. Belisarius, however, had taken care to supply the inhabitants with provisions, so that they were now in no danger of suffering by famine; and the assaults of the enemy were vigorously repelled, so that Totila at last abandoned the enterprise. In the meantime the Persians gained great advantages over the Romans in the east, so that there was a necessity for recalling Belisarius. On this Totila renewed his efforts with greater vigor than ever; and the Franks, concluding that both Romans and Goths would be much weakened by such a destructive war, seized upon Venetia, which belonged to both, and made it a province of the French empire.

Totila did not oppose them; but, having obtained a reinforcement of 6000 Lombards, returned immediately to the neighbourhood of Rome, fully intent on making himself master of that metropolis. Having closely invested it by sea and land, he hoped again to reduce it by famine; but against this the governor had provided, by causing corn to be sown within the walls. The city, however, was again betrayed by the Isaurians, who opened one of the gates and admitted the enemy. Thus the empire of the Goths was a third time established in Italy; and Totila once more despatched ambassadors to Justinian, offering to assist him as a faithful ally, provided he would allow him the quiet possession of that country. But Justinian would not admit the ambassadors into his presence: upon which Totila resolved to pursue the war with the utmost vigor, and to make himself master of all the places which the Romans

possessed in Italy, and in Sicily. This he fully accomplished; when Narses, who had formerly been joined in the command with Belisarius, was re-appointed general. But, while he was making preparations for an expedition, Totila, having equipped a fleet of 300 galleys, sent them to pillage the coasts of Greece. They made a descent on the island of Corfu; and, having laid it waste, sailed to Epirus, where they surprised and plundered the cities of Nicopolis and Anchialus, taking many ships on the coast, among which were some laden with provisions for the army of Narses. After these successes they laid siege to Ancona in Dalmatia. Being defeated, however, both by sea and land, Totila once more sent ambassadors to Constantinople, offering to yield Sicily and Dalmatia, to pay an annual tribute for Italy, and to assist the Romans as a faithful ally in all their wars; but Justinian, bent upon driving the Goths out of Italy, again refused to admit the ambassadors. Totila, finding therefore that no terms could be obtained, began to levy new forces, and to make great preparations by sea and land. He soon reduced the islands of Corsica and Sardinia; but this was the last of his successes. Narses arrived in Italy with a formidable army, and an immense treasure to pay the troops their arrears. He immediately took the road to Rome; while Totila assembled his forces, in order to decide the fate of Italy by a general engagement. The battle proved obstinate; but at last the Gothic cavalry being put to the rout, and retiring in great confusion among the infantry, the latter were thereby thrown into such disorder, that they could never afterwards rally. Narses, observing their confusion, encouraged his men to make a last effort; which the Goths not being able to withstand, betook themselves to flight, with the loss of 6000 men. Totila, finding the day lost, fled with only five horsemen; but was pursued and mortally wounded by a barbarian commander, who followed Narses. He continued his flight, however, for some time; but was at last obliged to halt to have his wound dressed, soon after which he expired.

This disaster did not yet entirely break the spirit of the Goths. They chose for their king one Teia, esteemed one of the most valiant men of their nation. The present progress of the Romans, however, was not to be arrested. Narses made himself master of a great number of towns, and of Rome itself, before the Goths could assemble their forces. The Roman general next proceeded to invest Cumae; which Teia determined at all events to relieve, as the royal treasure was lodged in that city. This brought on an engagement, which, Procopius says, proved one of the most bloody that ever was fought. The Roman army consisted of vast multitudes of different nations; the Goths were few in comparison; but, animated by despair, and knowing that all that was at stake, they fought with the utmost fury. Their king placed himself in the first rank, to encourage his men by his example; and is said to have exhibited equal valor and talent. The Romans discovering him, and knowing that his death would probably put an end to the battle, if not to the war, directed their whole

force against his person. Teia maintained his ground with great intrepidity, received the missile weapons on his shield, and killing a great number of the enemy with his own hand. When his shield was so loaded with darts that he could not easily wield it, he called for another. Thus he shifted his shield three times; but as he attempted again to change it, his breast being necessarily exposed for a moment, a dart struck him with fatal force, and he fell down dead in the place where he had stood from the beginning of the battle. The Romans now cut off his head and exposed it to the Goths, not doubting but they would immediately retire. In this, however, they were disappointed. The Goths maintained the fight with great vigor, till night and the whole of the next day. On the third day, despairing of being able to overcome an enemy so much superior, they sent deputies to Narses, offering to lay down their arms, provided such of them as chose to remain in Italy were allowed to enjoy their possessions as subjects of the empire; and those who were willing to retire elsewhere were suffered to carry with them their effects. To these terms Narses assented; and thus the empire of the Goths in Italy was finally destroyed.

Narses had been assisted in this conquest by many barbarous nations, among whom were the Lombards, at that time settled in Pannonia. On the conclusion of the war they were dismissed with presents, and the nation for some time continued faithful allies to the Romans. In the mean time, Justinian dying, Narses, who governed Italy, was accused to the emperor Justin II., and the empress Sophia, of aspiring to the sovereignty of that country. Hereupon he was recalled, and Longinus sent to succeed him. Narses being a eunuch, the empress is reported to have said, that his employment at Constantinople should be to distribute in the apartments of her women the portion of wool which each was to spin. Enraged at this sarcasm, Narses replied, that he would himself begin such a web as she should never be able to finish; and immediately despatched messengers to Alboin, king of the Lombards, inviting them into Italy. In the month of April 568, therefore, that prince set out with his whole nation, men, women, and children, and all their moveable property. This multitude, arriving by the way of Istria, found the whole country abandoned, the inhabitants having fled to the neighbouring islands of the Adriatic. The gates of Aquileia were opened by the few inhabitants who had courage to stay: most of them, however, had fled with their valuable effects; and among the rest the patriarch Paulinus, who had carried with him all the sacred vessels of the churches. From Aquileia, Alboin proceeded to Forum Julii, of which he likewise became master without opposition.

Here he spent the winter; during which time he erected Friuli into a dukedom, which continued till the year 1797 when it became a province of Maritime Austria. See **FRIULI**. In 569 he made himself master of Trivigi, Oderzo, Monte Selce, Vicenza, Verona, and Trent; in each of which he left a strong garrison of Lombards under the command of an officer, whom he

distinguished by the title of duke. Padua and some other cities Alboin did not attempt to reduce. In 570 he entered Liguria. The inhabitants were so terrified at his approach, that they abandoned their habitations, with such of their effects as they could carry off, and fled into the mountainous parts of the country. Brescia, Bergamo, Lodi, Como, and other cities, being thus left almost without inhabitants, submitted; after which he reduced Milan, and was proclaimed king of Italy. But, though the Lombards had thus conferred that title on Alboin, he was by no means possessed of the whole country, nor indeed was it ever in the power of the Lombards. Having made himself master of Venetia, Liguria, Emilia, Heturia, and Umbria, Alboin applied himself to legislation and the civilisation of his subjects. But, before he could make any progress in this work, he was taken off by the treachery of his wife; and Clephis, one of the nobles, chosen king. This monarch rebuilt some cities which had been ruined during the wars between the Goths and Romans, and extended his conquests to the gates of Rome; but he was murdered after a reign of eighteen months. His cruelty gave the Lombards such an aversion to regal power, that they now determined to divide the supreme authority among their dukes; and this scheme of government was adopted for ten years. During this period they proved successful in their wars with the Romans; but, perceiving that thus divided they could not long subsist, they resolved once more to submit, to the authority of a single chief; and accordingly, in 585, Antharic was chosen king. The great object of ambition to the new race of Lombard monarchs was the conquest of all Italy; and this proved at last the ruin of their empire by Charles the Great, as related under the article **FRANCE**.

4. Italy from the overthrow of the Lombard kingdom, to the extirpation of the Saracens.—As the Lombards had not been possessed of the whole territory of Italy, so the whole of it never came into the possession of Charlemagne: neither, since the time of the Ostrogoths, has the whole of this country been under the dominion of any single state. Some of the southern provinces were still possessed by the emperors of Constantinople; and the liberal grants of Pepin and Charlemagne himself to the pope, had invested him with a considerable share of temporal power. The territories of the pope indeed were supposed to be held in vassalage from France; but this the popes themselves always denied. The undisputed territory of Charlemagne, in Italy, therefore, was restricted to Piedmont, the Milanese, the Mantuan, the territories of Genoa, Parma, Modena, Tuscany, Bologna, the dukedoms of Friuli, Spoleto, and Benevento: the last of which contained the greatest part of the present kingdom of Naples. The feudal government, which the Lombards had introduced into Italy, naturally produced revolts and commotions, as the different dukes inclined either to change their masters or to set up for themselves. Several revolts indeed happened during the life of Charlemagne; which, however, he always found means to crush; but, after his death, the

sovereignty of Italy became an object of contention between the kings of France and the emperors of Germany. That great monarch had divided his extensive dominions among his children; but they all died during his life-time, except Louis, whom he associated in the empire, and who succeeded to all his dominions after his death. From this time we may date the troubles with which Italy was so long overwhelmed; and of which, as they proceeded from the ambition of those called kings of Italy and their nobles, of the kings of France, and of the emperors of Germany, it is difficult to have any clear idea. The following short sketch, however, may perhaps give some satisfaction on this perplexed subject.

When Louis the son of Charlemagne was declared emperor of the West, Italy was held by Bernard the son of Pepin, brother to Louis; but, though Bernard bore the title of king, he was only accounted a vassal of the emperor. His ambition, however, soon prompted him to rebel against his uncle; but, being abandoned by his troops, he was taken prisoner, had his eyes put out, and died three days after. As the disturbances still continued, and the nobles of Lombardy were yet very refractory, Lothaire, eldest son to the emperor, was in 823 sent into Italy; of which country he was first crowned king at Rome, and afterwards emperor of the West, during his father's lifetime. His unbounded ambition now prompted him to engage in rebellion against his father; whom he more than once took prisoner, though in the end he was obliged to submit, and ask pardon for his offences, which was obtained only on condition of his not passing the Alps without leave obtained from that prince. In the mean time the Saracens, taking advantage of these intestine wars, landed on the coasts of Italy, and committed such ravages, that even the bishops were obliged to arm for the defence of the country. Lothaire, however, after returning from his unnatural war with his father, was so far from attempting to put an end to these ravages, or to restore tranquillity, that he seized on some places belonging to the see of Rome, under pretence that they were part of his kingdom of Lombardy. After having embroiled himself, and almost lost all his dominions, in a war with his brothers after the death of Louis, and declared his son Louis king of Italy, this ambitious prince died, leaving to his son the title of emperor as well as that of king of Italy, with which he had before invested him.

The new emperor applied himself to the restoration of tranquillity in his dominions, and driving out the Saracens from those places which they had seized in Italy. This he fully accomplished, and obliged the infidels to retire into Africa; but in 875 he died without naming any successor. After his death some of the Italian nobles, headed by the duke of Tuscany, represented to the pope, that, as Louis had left no successor, the regal dignity, which had so long been usurped by foreigners, ought now to return to the Italians. The pope, however, finding that Charles the Bald, of France, was determined to obtain the imperial crown, resolved to gratify him, though at as high a price as possible. He accordingly crowned

him emperor and king of Lombardy, on condition of his owning the independency of Rome, and that he himself only held the empire by gift of the pope. This produced a conspiracy among the discontented nobles; and at the same time the Saracens, renewing their incursions, threatened the ecclesiastical territories with the utmost danger. The pope solicited the emperor's assistance, but the latter died before any thing effectual could be done: after which, being distressed by the Saracens on one hand, and the Lombard nobles on the other, the unhappy pontiff was forced to fly into France. Italy now fell into the utmost confusion and anarchy; during which time many of the nobles and states of Lombardy assumed an independence, which they retained till the Revolution in 1796. In 879 the pope was reconducted to Italy with an army by Boson, son-in-law to Louis II., of France; but, though he inclined very much to have raised this prince to the dignity of king of Italy, he found his interest insufficient, and matters remained in their former situation. The nobles, who had driven out the pope, were now indeed reconciled to him, but the state of the country was worse than ever; the great men renouncing the authority of any superior, and every one claiming to be sovereign in his own territories. To add to the calamities which ensued, through the ambition of these despots, the Saracens committed every where the most terrible ravages; till at last the Italian nobles despising the kings of the Carolingian race, who had weakened themselves by their mutual dissensions, began to think of throwing off even all nominal submission to a foreign yoke, and retaining the imperial dignity among themselves.

Accordingly in 885 they went to pope Adrian; and, requesting him to join them in asserting the independency of Italy, obtained the two following decrees, viz. That the popes, after their election, might be consecrated without waiting for the presence of the king or his ambassadors; and 2. That, if Charles the Gross died without sons, the kingdom of Italy, with the title of emperor, should be conferred on some of the Italian nobles. These decrees were productive of the worst consequences. The emperor complained of being deprived of his right, and the dissensions among the Italian nobles became more fatal than ever. The two most powerful of these, Berengarius duke of Friuli, and Vido, or Guido, duke of Spoleto, entered into an agreement, that on the death of the emperor the former should seize on the kingdom of Italy, and the latter on that of France. Berengarius succeeded without opposition; but Vido was disappointed, the French having chosen Eudes or Otho for their king. Upon this he returned to Italy, and turned his arms against Berengarius. Vido proved victorious, and drove his rival into Germany; where he sought the assistance of Arnolphus, who had succeeded on the death of Charles. Having thus obtained the kingdom of Italy, Vido employed his time in reforming the abuses of the state, and confirming the grants formerly made to the pope, out of gratitude for his having sanctified his usurpation. This tranquillity, however, was of short

duration Arnolphus sent an army into Italy; the Saracens from Spain ravaged the northern parts of the country, and, getting possession of a castle near the Alps, held it for many years; at the same time Benevento was besieged and taken by the forces of the eastern emperor, so that Vido found his empire very considerably circumscribed. The new king, distressed by so many enemies, associated his son Lambert in the government, and bribed the Germans to return to their own country. In 893, however, they again invaded Italy; but were obliged to leave the country, after having put Berengarius in possession of Pavia. In the mean time Vido died, and Lambert drove out Berengarius; but having joined a faction, headed by one Sergius, against pope Formosus, the latter offered the kingdom of Italy to Arnolphus; who, entering the country with an army, besieged and took Rome, massacring the faction of Sergius with unrelenting cruelty.

Arnolphus, thus master of Italy, and crowned emperor by the pope, began to form schemes of strengthening himself in his new acquisitions by putting out the eyes of Berengarius: but the latter, having timely notice of his treachery, fled to Verona; and the Italians were so provoked at this and the other cruelties of Arnolphus, that they drove him out of the country. His departure occasioned the greatest confusion at Rome. Formosus died soon after; and the successors to the papal dignity, having now no army to fear, pursued the projects of their ambition unrestrained. The body of Formosus was dug up and thrown into the Tiber by one pope; after which the pontiff himself was strangled, and Formosus's body buried in the Vatican. At last the coronation of Arnolphus was declared void, the Sergian faction entirely overthrown, and the decrees of Adrian annulled; it being now determined that the popes should not be consecrated but in presence of the emperor or his ambassadors. During these tumults Lambert enjoyed the kingdom of Italy in quiet; but the nobles, hating him on account of his tyrannical disposition, offered the crown to Louis king of Arles. This new competitor entered Italy with an army in 899; but was forced by Berengarius to renounce his claim upon oath, and to swear that he would never again enter Italy. This oath, however, was soon forgotten. Louis readily accepted of another invitation, and was crowned king of Italy at Pavia in 901.

In 902 he forced Berengarius to fly into Bavaria; but, having unadvisedly disbanded his army, Berengarius surprised him at Verona, and put out his eyes. Thus at last Berengarius became king of Italy without a rival; and held his kingdom for twenty years. He was not, however, without troubles. The Hungarians invaded Italy with a formidable army, and advanced within a small distance of Pavia, when Berengarius armed the whole force of his dominions; and the invaders retired without venturing an engagement. Many of them were lost in passing a river: upon which they sent deputies to Berengarius; offering to restore their booty, and never to come again into Italy, provided they were allowed a safe retreat. These conditions were imprudently refused; upon which the Hungarians

attacked the army of Berengarius in despair, and defeated it with great slaughter. They now over-ran the whole country, plundering the towns of Treviso, Vicenza, and Padua, without resistance, and occasioned the greatest devastations for two years; nor could their departure be procured without paying them a large sum of money. Scarcely were these invaders departed, when the Saracens, who had settled at the foot of the Alps, invaded Apulia and Calabria, and made an irruption as far as Aequi in the neighbourhood of Pavia; while the inhabitants, instead of opposing them, fled to some forts which had been erected in the time of the first eruption of the Hungarians. In 912, however, John, presbyter of Ravenna, having obtained the papal dignity by means of Theodora wife of the count of Tuscany, applied himself to regulate the affairs of the church, and to repress the insults of the Saracens. While he was considering of the most proper methods of effecting this, one of them, who had received an injury from his countrymen, fled to Rome and offered to deliver the Italians from their invasions, if the pope would but allow him a small body of men. His proposals being accepted, sixty young men were chosen, all well armed; who, being conducted by the Saracen into by-paths, attacked the infidels as they were returning from their incursions, and several times defeated large parties. These losses destroying the self-confidence of the Saracens, a general alliance was concluded amongst all their cities; and, having fortified a town on the Garigliano, they abandoned the rest, and retired thither. Thus they became much more formidable than before; which alarming the pope, he consulted with Arnolphus prince of Benevento and Capua, sending at the same time ambassadors to Constantine the Greek emperor, inviting him to an alliance against the infidels. The Saracens, unable to withstand such a powerful combination, were besieged in their city: where being reduced to great straits, they at last set fire to it, and sallied out into the woods; but, being pursued by the Italians, they were all cut off to a man, A. D. 915.

5. *Italy, from the extirpation of the Saracens to the pontificate of Gregory VII.*—In this expedition Berengarius seems to have given great assistance; and this year he was crowned emperor by the pope. This gave displeasure to many of the ambitious nobles; conspiracies were repeatedly formed against him; in 922 Rodolphus king of Burgundy was crowned also king of Italy; and in 924 Berengarius was treacherously assassinated at Verona; of which disturbances the Hungarians taking advantage, plundered the cities of Mantua, Brescia, and Bergamo. Marching afterwards to Pavia, they invested it closely on all sides; and about the middle of March 925 set fire to the houses next the walls, and during the confusion broke open the gates, and treated the inhabitants with the greatest barbarity. Having burnt the capital, they next proceeded to Placenza, where they plundered the suburbs; and then returned to Pannonia laden with booty. The affairs of Italy now fell into the utmost confusion. A faction was formed against Rodolphus in favor of Hugh, count of Arles. The

latter prevailed, and was crowned king at Pavia in 927. The Italians, however, soon repented of their choice. The Romans first invited him to be their governor, and then drove him out with disgrace; at the same time choosing a consul, tribunes, &c., as if they had designed to assert their ancient liberty. One faction, in the mean time, offered the crown to Rodolphus, and the other to Arnold duke of Bavaria, while a fresh body of Saracens took this opportunity to plunder the city of Genoa. Hugh, in the mean time, having collected an army, marched against Arnold, and defeated him. Rodolphus entered into an alliance with him, and gave his daughter Adelaide in marriage to Lotharius, Hugh's son. Being thus free from all danger from foreign enemies, he marched against the Romans; but with them he also came to an agreement, and even gave his daughter in marriage to Alberic, whom they had chosen consul. But the country was still infested by the Hungarians and Saracens, and at the same time depopulated by a plague. Endless conspiracies were formed against Hugh himself; and at last, in 947, he was deprived of the regal power by Berengarius II. grandson to Berengarius I.; soon after which he retired into Burgundy, and became a monk.

Though Berengarius was thus possessed of the supreme power, he did not assume the title of king till after the death of Lotharius, which happened in 950; but in the mean time Italy was invaded by Henry duke of Bavaria, and the Hungarians. The former took and plundered Aquileia, and ravaged the neighbouring country; after which he returned without molestation into Germany: the latter made a furious irruption; and Berengarius, being unable to oppose him, was at last obliged to purchase his departure. In raising the sum agreed upon, however, Berengarius is said to have been more oppressive than even the Hungarians. The churches were robbed; by which means the king raised an immense sum of money, ten bushels of which he is said to have given to the Hungarians, but kept a much greater part to himself. Berengarius, not yet satisfied, wished to be put in possession at Paris, which was held by Adelaide the widow of Lotharius. To obtain his purpose, he proposed a marriage between her and his son Adelbert. This being rejected, Berengarius besieged and took the city. The queen was confined in a neighbouring castle, from whence she made her escape by a contrivance of her confessor. With him and one female attendant she concealed herself for some days in a wood; but, being obliged to remove thence for want of food, she applied for protection to Adelard bishop of Reggio. This person recommended her to his uncle Otho, who had a strong castle in the neighbourhood of Canzo. Here she was besieged by Berengarius; upon which messengers were sent to Otho king of Germany, informing him, that, by expelling Berengarius, and marrying Adelaide, he might easily obtain the kingdom of Italy.

This proposal he readily accepted, and married Adelaide; but allowed Berengarius to retain the greatest part of his dominions, upon condition of his doing homage for them to the kings

of Germany. He deprived him, however, of the dukedom of Friuli and marquisate of Verona, which he gave to Henry duke of Bavaria, Berengarius, thus freed from all apprehensions not only oppressed his subjects in a most tyrannical manner, but revolted against Otho himself; which at last procured his ruin: for in 961 Otho returned with an army into Italy, where he was crowned king by the archbishop of Milan. In 962 he was crowned emperor by the pope. On this last occasion he received the imperial crown from his holiness, and kissed his feet with great humility: after which they both went to the altar of St. Peter, and bound themselves by a solemn oath, the pope to be always faithful to the emperor, and to give no assistance to Berengarius or Adelbert his enemies; and Otho to consult the welfare of the church, and to restore to it all its patrimony granted by former emperors. Otho, besides this, bestowed very rich presents on the papal see. He ordained that the election of popes should be according to the canons; that the pope should not be consecrated till he had publicly promised, in presence of the imperial commissioners, to respect the rights of the emperors: that these commissioners should constantly reside at Rome, and make a report every year how justice was administered there; and, in case of any complaints, lay them before the pope; but, if he neglected, then the commissioners might proceed with the causes. Thus Otho, however much he might allow the pope's supremacy in spiritual matters, plainly assumed the sovereignty in temporals; and thus Italy was for upwards of 300 years accounted a part of the German empire.

The popes, however, by no means approved of this superiority of the emperor. The latter was hardly departed, when John XII. broke the oath which he had just sworn; and entered first into an alliance with Adelbert count of Tuscany to expel the Germans, and then solicited the Hungarians to invade Italy. This treachery was soon punished. Otho returned with part of his army, and assembled a council of bishops, and as the pope did not appear, at which Otho pretended great concern, the bishops said that consciousness of guilt made him afraid to show himself. The emperor then enquired particularly into his crimes; upon which the bishops accused him of filling the palace with lewd women, of ordaining a bishop in a stable, drinking the devil's health, &c. As the pope still refused to appear to justify himself, he was formally deposed; and Leo the chief secretary, though a layman, elected in his stead. The new pope, in compliment to the emperor, granted a bull, by which it was ordained that Otho and his successors should have a right of appointing the popes and investing archbishops and bishops; and that none should dare to consecrate a bishop without leave obtained of the emperor. Thus were the affairs of Italy still kept in the utmost confusion, even during the reign of Otho I., who appears to have been a wise and active prince. He was no sooner gone than the new pope was deposed, all his decrees annulled, and John replaced. The party of Leo was now treated with great cruelty: but John soon finished his career; for

about the middle of May, 964, the same year in which he had been restored, being surprised in bed with a Roman lady, he received a blow on the head from the devil, according to the authors of those times, of which he died eight days after. A cardinal deacon, named Benedict, was then elected by the Romans, but deposed by Otho, and banished to Hamburgh. The emperor was scarcely returned to Germany, when his fickle Italians revolted, and sent for Adelbert, who had fled to Corsica. But, being soon reduced, they continued quiet for about a year; after which they revolted again, and imprisoned the pope. Otho, however, provoked at their refractory disposition, soon returned, and punished the rebels with great severity: after which he made several laws for the better regulation of the cities of Rome and Venice, and caused his son Otho, then only thirteen years of age, to be crowned emperor. This ceremony being over, Otho despatched an ambassador to Nicephorus, emperor of Constantinople, demanding his step-daughter Theophanicia in marriage for the young emperor: upon this alliance being rejected, with circumstances of atrocious perfidy, Otho instantly invaded the countries of Apulia and Calabria, and entirely defeated the Greek army. In the mean time, Nicephorus being killed, and his throne usurped by John Zimisces, Otho entered into an alliance with the latter, and easily obtained Theophanicia for his son.

She was crowned with great solemnity on the 8th of April 969: at the same time, it is pretended by some authors, that the Greeks renounced their rights to Calabria and Apulia. After the celebration of this marriage, the emperor undertook an expedition against the Saracens, who still resided at the foot of the Alps; but, being informed of the death of several German nobles, he thought proper to return thither, where he died of an apoplexy in 973. At the time of Otho's death Italy was divided into the provinces of Apulia, Calabria, the dukedom of Benevento, Campania, Terra Romana, the dukedom of Spoleto, Tuscany, Romagna, Lombardy, and the marquises of Ancona, Verona, Friuli, Treviso, and Genoa. Apulia and Calabria were still claimed by the Greeks; but all the rest were either immediately subject to, or held of, the kings of Italy. Otho conferred Benevento, including the ancient Samnium, on the duke of that name. Campania and Lucania he gave to the dukes of Capua, Naples, and Salerno. Rome with its territory, Ravenna with the exarchate, the dukedom of Spoleto, with Tuscany, and the marquise of Ancona, he granted to the pope; and retained the rest of Italy under the form of a kingdom. Some of the cities were left free, but all tributary. He appointed several hereditary marquises and counties, but reserved to himself the sovereign jurisdiction in their territories. The liberty of the cities consisted in a freedom to choose their own magistrates, to be judged by their own laws, and to dispose of their own revenues; on condition that they took the oath of allegiance to the king, and paid the customary tribute. The cities that were not free were governed by the commissioners or lieutenants of the emperor: but the

free cities were governed by two or more consuls, afterwards called potentates, chosen annually, who took the oath of allegiance to the emperor before the bishop of the city or the emperor's commissary. The tribute exacted was called foderum, parata, and mansionaticum. By the foderum was meant a certain quantity of corn, which the cities were obliged to furnish to the king, when marching with an army, or making a progress through the country; though the value of this was frequently paid in money. By the parata was understood the expense laid out in keeping the public roads and bridges in repair; and the mansionaticum included those expenses which were required for lodging troops or accommodating them in their camp. Under pretence of this last article the inhabitants were sometimes stripped of all they possessed except their oxen and seed. Besides regulating what regarded the cities, Otho distributed honors and possessions to those who had served him faithfully. The honors consisted in the titles of duke, marquis, count, captain, valvasor, and valvasin; the possessions were, besides land, the duties arising from the harbours, ferries, roads, fish-ponds, mills, salt-pits, the uses of rivers, &c. &c. The dukes, marquises, and counts, were those who received dukedoms, marquises, and counties, from the king in fiefs; the captains had the command of a certain number of men by a grant from the king, duke, marquis, or count; the valvassors were subordinate to the captains, and the valvasins to them.

No sooner was the death of Otho I. known in Italy, than, as if they had been now freed from all restraint, the nobles declared war against each other: some cities revolted, and chose to themselves consuls; while the dominions of others were seized by the nobles, who strengthened themselves by erecting citadels. Rome especially was harassed by tumults, occasioned chiefly by the seditious practices of one Cincius, who pressed his fellow-citizens to restore the ancient republic. As the pope continued firm in the interests of the emperor, Cincius caused him to be strangled by Franco, a cardinal deacon; who was soon rewarded with the pontificate, and took upon him the name of Boniface VII. Another pope was chosen by the faction of the count of Tuscany; who, being approved by the emperor, drove Cincius and Boniface out of the city. Disturbances of a similar kind took place in other cities; but Milan continued quiet and loyal. In the mean time Boniface fled for refuge to Constantinople, where he exhorted the emperor to make war against Otho II. In 979 an army was accordingly sent into Italy which conquered Apulia and Calabria; but the next year Otho entered Italy with a formidable army; and, having taken a severe revenge on the authors of the disturbances, drove the Greeks entirely out of the provinces they had seized. Having then caused his son Otho III., at that time a boy of ten years of age, to be proclaimed emperor, he died at Rome in the year 983. Among the regulations made by this emperor one is very remarkable, and gives a strange idea of the inhabitants of Italy at that time. He made a law, that no Italian should be believed

upon his oath; and that, in any dispute which could not be decided otherwise than by witnesses, the parties should have recourse to a duel. Otho III. succeeded to the empire at twelve years of age; and during his minority the disturbances in Italy revived. Cincius, called also Crescentius, renewed his scheme of restoring the republic. Pope John XV., opposing this, was driven out of the city; but was soon after recalled, on its being known that he had applied to the emperor for assistance. A few years after Crescentius again revolted, and expelled Gregory V. the successor of John XV.; raising to the papal dignity a creature of his own, under the name of John XVI. Otho, enraged at this insult, returned to Rome with a powerful army in 998, besieged and took it by assault; after which he caused Crescentius to be beheaded, and the pope he had set up, after having his eyes pulled out and his nose cut off, to be thrown headlong from the castle of St. Angelo. Four years after he himself died of the small pox; or, according to some, was poisoned by the widow of Crescentius, whom he had debauched under a promise of marriage.

Otho was succeeded in the imperial throne by Henry duke of Bavaria, and grandson to Otho II., who had no sooner settled the affairs of Germany, than he found it necessary to march into Italy against Ardouin marquis of Ivrea, who had assumed the title of king of Italy. Him he defeated in an engagement, and was himself crowned king of Italy at Pavia in 1005; but a few years after a new contest arose about the papal chair, which again required the presence of the emperor. Before he arrived, however, one of the competitors, Benedict VIII., had overpowered his rival, and both Henry and his queen received the imperial crown from his hands. Before the emperor entered the church, the pope enquired of him, ‘Will you observe your fidelity to me and my successors in every thing?’ To which he answered in the affirmative; and, after his coronation, confirmed and added to the privileges bestowed on the Roman see by his predecessors. Having repelled the incursions of the Saracens, and reduced the greatest part of Apulia and Calabria, he died in 1024. The death of this emperor was, as usual, followed by a competition for the crown. Conrad, being chosen emperor of Germany, was declared king of Italy by the archbishop of Milan; while a party of the nobles offered the crown to Robert king of France, or his son Hugh. But this offer being declined, and another likewise made to William duke of Guienne, Conrad enjoyed the dignity conferred on him by the archbishop. He was crowned king of Italy at Monza in 1026; and the next year he received the imperial crown from pope John XX., in presence of Canute the Great, king of England, and Rodolph III. king of Burgundy. His reign was similar to that of his predecessors. The Italians revolted, the pope was expelled, malcontents were subdued, and the pope restored: after which the emperor returned to Germany, and died in 1039. Under Henry III., who succeeded Conrad, the disturbances were prodigiously augmented. Pope Sylvester II. was driven out by

Benedict; who in his turn was expelled by John bishop of Sabinum, who assumed the title of Sylvester III. Three months after Benedict was restored, and excommunicated his rivals; but soon after resigned, or rather sold the pontificate for a sum of money. In a short time he re-claimed it; and thus there were at once three popes, each of whom was supported on branch of the papal revenue, while all of them made themselves odious by their scandalous lives. At last a priest called Gratian put an end to this triumvirate. Partly by artifice, and partly by presents, he persuaded all the three to renounce their pretensions; and the people of Rome, out of gratitude for so signal a service to the church, chose him pope, under the name of Gregory VI. Henry III. took umbrage at this election, in which he had not been consulted, and, marching an army into Italy, deposed Gregory for simony: the vacant papal chair was filled by his own chancellor Heidiger, bishop of Bamberg, who assumed the name of Clement II., and afterwards consecrated Henry and the empress Agnes. The Romans now swore never to elect a pope without the approbation of the reigning emperor; and Henry proceeded to Capua, where he was visited by Drago, Rainulphus, and other Norman adventurers, who had made themselves masters of great part of Apulia and Calabria, at the expense of the Greeks and Saracens. Henry not only solemnly invested them with those territories which they had acquired by conquest, but prevailed on the pope to excommunicate the Beneventines, who had refused to open their gates to him, and bestowed that city and its dependencies, as fiefs of the empire, upon the Normans. The emperor was scarcely returned to Germany when he received intelligence of the death of Clement II. He was succeeded in the apostolic see by Damascus II.; who also dying, soon after his elevation, Henry nominated Bruno bishop of Toul to the vacant chair. This Bruno, who was the emperor's relation, immediately assumed the pontifical attire; but, being a modest and pious prelate, threw it off on his journey, by the persuasion of a monk of Cluny, named Hildebrand, afterwards the famous Gregory VII., and entered Rome as a private person. ‘The emperor alone,’ said Hildebrand, ‘has no right to create a pope.’ He accompanied Bruno, and secretly retarded his election, that he might arrogate to himself the merit of obtaining it. The scheme succeeded: Bruno, who took the name of Leo IX., believing himself indebted to Hildebrand for the pontificate, favored him with his particular friendship and confidence; and hence originated the power of this enterprising monk, of obscure birth, but boundless ambition, who governed Rome so long, and whose zeal for the exaltation of the church occasioned so many disasters to Europe. Leo soon after his elevation waited on the emperor at Worms, to ask assistance against the Norman princes, who were become the terror of Italy. Henry furnished his holiness with an army; at the head of which he marched against the Normans, after having excommunicated them; accompanied by great number of bishops and other ecclesiastics, who

were all either killed or taken prisoners, the Germans and Italians being totally routed. Leo himself was led captive to Benevento, of which the Normans were now masters, but which Henry had granted to the pope in exchange for the fief of Bamberg in Germany. Here he was treated with so much respect by the conquerors, that he revoked the sentence of excommunication, and joined his sanction to the imperial investiture for the lands which they held in Apulia and Calabria. Leo died soon after his release; and the emperor about the same time caused his infant son, afterwards the famous Henry IV., to be declared king of the Romans. Gebhard, a German bishop, was elected pope, under the name of Victor II., and confirmed by the address of Hildebrand, who waited on the emperor in person for that purpose, though he disdained to consult him beforehand. Perhaps Hildebrand would not have found his task so easy, had not Henry been involved in a war with the Hungarians. As soon as the emperor had finished this war he marched into Italy to inspect the conduct of his sister Beatrice, widow of Boniface marquis of Mantua, and made her prisoner. She had married Gozelo, duke of Lorraine, without his consent; and contracted Matilda, her daughter by the marquis, to Godfrey duke of Spoleto and Tuscany, Gozelo's son by a former marriage. This formidable alliance justly alarmed Henry; he therefore attempted to dissolve it, by carrying his sister into Germany; where he died soon after his return, in the thirty-ninth year of his age, and the sixteenth of his reign.

This emperor, in his last journey to Italy, concluded an alliance with Contarini, doge of Venice. That republic was already rich and powerful, though it had only been enfranchised in 998, from the tribute of a mantle of cloth of gold, which it formerly paid, as a mark of subjection to the emperors of Constantinople. Genoa was the rival of Venice in power and in commerce, and was already in possession of the island of Corsica, which it had taken from the Saracens. These two cities engrossed at this time almost all the trade of Europe. Henry IV. was only five years old at his father's death, and the popes made use of the respite given them by his minority to shake off their dependence upon the emperors. After various contests about the pontificate, Nicholas II., a creature of Hildebrand's, was elected; who passed the following celebrated decree, viz. that for the future the cardinals only should elect the pope; and that the election should afterwards be confirmed by the rest of the clergy and the people, 'saving the honor,' adds he, 'due to our dear son Henry now king; and who, if it please God, shall be one day emperor, according to the right which we have already conferred upon him.' After this he entered into a treaty with the Norman princes, who, though they had lately sworn to hold their possessions from the emperor, now stipulated to hold them from the pope; and hence arose the pope's claim of sovereignty over the kingdoms of Naples and Sicily. Henry having assumed the government into his own hands in 1072, being then twenty-two years of age, was summoned by Alexander II. to appear before

the tribunal of the holy see, on account of his loose life, and to answer the charge of having exposed the investiture of the bishops to sale; at the same time that the pope excited his German subjects to rebel against him. The rebels, however, were defeated, and peace was restored to Germany: but soon after, Hildebrand himself being elected to the pontificate, under the name of Gregory VII., he openly assumed the superiority over every earthly monarch.

6. Italy during the eleventh and twelfth centuries, and to the disputes of the Guelphs and Ghibelins.—Gregory began his pontificate with excommunicating every ecclesiastic who should receive a benefice from the hands of a layman, and every layman who should take upon him to confer such a benefice. The emperor, instead of resenting this insolence, submitted, and wrote a penitential letter to the pope; who, upon this, condescended to take him into favor, after having severely reprimanded him for his licentious life. The quarrel between the church and the emperor was, however, soon revived and brought to a crisis. Solomon, king of Hungary, being deposed by his brother Geysa, had fled to Henry for protection, and renewed the homage of Hungary to the empire. Gregory, who favored Geysa, exclaimed against this act of submission; and said, in a letter to Solomon, 'You ought to know that the kingdom of Hungary belongs to the Roman church; and learn that you will incur the indignation of the holy see, if you do not acknowledge that you hold your dominions of the pope and not of the emperor.' Henry, though highly provoked at this declaration, thought proper to treat it with neglect; upon which Gregory resumed the dispute about investitures. The predecessors of Henry had in common^{with} almost all the princes enjoyed the right of nominating bishops and abbots, and of giving them investiture by the cross and the ring. The popes had been accustomed, on their part, to send legates to the emperors, in order to entreat their assistance in filling up the sees, &c. and, to obtain their confirmation. Gregory, however, sent two legates to summon Henry to appear before him as a delinquent, because he continued to bestow investitures, notwithstanding the recent apostolic decree to the contrary; adding that, if he should fail to yield obedience to the church, he must expect to be excommunicated and dethroned. Incensed at this arrogant message, from one whom he considered as his vassal, Henry dismissed the legates with very little ceremony, and in 1106 convoked an assembly of all the princes and dignified ecclesiastics at Worms; where, after mature deliberation, they concluded that Gregory, having usurped the chair of St. Peter by indirect means, infected the church of God with many novelties and abuses, and deviated from his duty to his sovereign in several scandalous attempts, the emperor, by that supreme authority derived from his predecessors, ought to divest him of his dignity, and appoint another in his place. In consequence of this determination, Henry sent an ambassador to Rome, with a formal deprivation of Gregory; who, in his turn, convoked a council, at which were present 110 bishops, who unanimously

agreed that the pope had just cause to depose Henry, to dissolve the oath of allegiance which the princes and states had taken in his favor, and to prohibit them from holding any correspondence with him, on pain of excommunication; which was immediately fulminated against the emperor and his adherents. ‘In the name of Almighty God, and by our authority,’ said Gregory, ‘I prohibit Henry, the son of our emperor Henry, from governing the Teutonic kingdom and Italy: I release all Christians from their oath of allegiance to him; and strictly forbid all persons from serving or attending him as king!’ The circular letters written by this pontiff breathe the same spirit with his sentence of deposition. He there repeats several times, ‘that bishops are superior to kings, and made to judge them!’ expressions alike artful and presumptuous, and calculated for bringing in all the churchmen to his standard. Gregory knew well what consequences would follow the thunder of the church. The German bishops came immediately over to his party, with many of the nobles: the torch of civil war still lay smothering, and a bull properly directed was sufficient to set it in a blaze. The Saxons, Henry’s old enemies, made use of the papal displeasure for rebelling against him. Even Guelph, to whom the emperor had given the duchy of Bavaria, supported the malcontents with that power which he owed to his sovereign’s bounty: nay, those very princes and prelates who had assisted in deposing Gregory gave up their monarch to be tried by the pope; and his holiness was solicited to come to Augsburg for that purpose. Willing to prevent this odious proceeding, Henry took the unaccountable resolution of suddenly passing the Alps, accompanied only by a few domestics, to ask absolution of the pope, who was then in Canoza, on the Apennine Mountains, a fortress belonging to the countess or duchess Matilda. At the gates of this place the emperor presented himself as an humble penitent. He alone was admitted without the outer court; where, being stripped of his robes, and wrapped in sackcloth, he was obliged to remain three days in the month of January, bare-footed and fasting, before he was permitted to kiss the feet of his holiness; who was all that time shut up with the devout Matilda. Her attachment to Gregory, which some historians represent as licentious, and her hatred to the Germans, were so great, that she made over all her estates to the apostolic see: a donation which was the cause of numerous wars, which since that period have raged between the emperors and the popes. She possessed in her own right great part of Tuscany, Mantua, Parma, Reggio, Placentia, Ferrara, Modena, Verona, and almost the whole of what was called the Patrimony of St. Peter, from Viterbo to Orvieto; together with part of Umbria, Spoleto, and the Marche of Ancona. The emperor was at length permitted to throw himself at the pontiff’s feet, who condescended to grant him absolution, after he had sworn obedience to him in all things, and promised to submit to his lenient decision at Augsburg: so that Henry obtained nothing but disgrace by his journey; while Gregory, elated by his triumph, and now looking upon himself

(not altogether without reason) as the lord and master of all the crowned heads in Christendom, said in several of his letters that ‘it was his duty to pull down the pride of kings.’

This extraordinary conduct of Henry gave much disgust to the princes of Italy. They never could forgive the insolence of the pope, nor the abject humility of the emperor. Happily, however, for the latter, their indignation at Gregory’s arrogance overbalanced their detestation of his meanness. He took advantage of this: and, by a change of fortune hitherto unknown to the German emperors, he found a strong party in Italy when abandoned in Germany. All Lombardy took up arms against the pope, while he was raising all Germany against the emperor. Gregory made use of every art to get another emperor elected in Germany; and Henry, on his part, left nothing undone to persuade the Italians to elect another pope. The Germans chose Rodolph, duke of Suabia, who was solemnly crowned at Mentz; and Gregory, hesitating on this occasion, behaved truly like the supreme judge of kings. He had deposed Henry, but still it was in his power to pardon him: he therefore affected to be displeased that Rodolph was consecrated without his order; and declared that he would acknowledge, as emperor and king of Germany, him of the two competitors who should be most submissive to the holy see. Henry, however, trusting more to the valor of his troops than to the generosity of the pope, set out immediately for Germany, where he defeated his enemies in several engagements; and Gregory, seeing no hopes of submission, thundered out a second excommunication against him, confirming at the same time the election of Rodolph, to whom he sent a golden crown, on which the following verse, equally haughty and puerile, was engraved:—

Petra delit Petro, Petrus diadema Rodolpho.

This donation was also accompanied with a most enthusiastic anathema against Henry. After depriving him of strength in combat, and condemning him never to be victorious, it concludes with the following remarkable apostrophe to St. Peter and St. Paul:—‘Make all men sensible that, as you can bind and loose every thing in heaven, you can also upon earth take from or give to every one, according to his deserts, empires, kingdoms, principalities—let the kings and princes of the age then instantly feel your power, that they may not dare to despise the orders of your church; let your justice be so speedily executed upon Henry, that nobody may doubt but he falls by your means and not by chance.’ To avoid the effects of this second excommunication, Henry assembled at Brixen, in the Tyrol, about twenty German bishops, who, acting also for the bishops of Lombardy, unanimously resolved, that the pope, instead of having power over the emperor, owed him obedience and allegiance; and that Gregory VII., having rendered himself unworthy of the papal chair by his conduct and rebellion, ought to be deposed from a dignity he so little deserved. They accordingly degraded Hildebrand; and elected in his room Guibert archbishop of Ravenna, a person of un-

doubted merit, who took the name of Clement III. Henry promised to put the new pope in possession of Rome, but was obliged in the mean time to employ all his forces against Rodolph, who had re-assembled a large body of troops in Saxony. The two armies met near Mersburg, and both fought with great fury; but the fortune of the day seemed inclined to Rodolph, when his hand was cut off by the famous Godfrey of Bouillon, then in the service of Henry, and afterwards renowned for his conquest of Jerusalem. Discouraged by the misfortune of their chief, the rebels gave way; and Rodolph, perceiving his end approaching, ordered the hand that was cut off to be brought him, and made a speech to his officers on the occasion which could not fail to have an influence on the emperor's affairs:—‘Behold,’ said he, ‘the hand with which I took the oath of allegiance to Henry; and which, at the instigation of Rome, I have violated, in perfidiously aspiring at an honor that was not my due.’

Thus delivered from this formidable antagonist, Henry soon dispersed the rest of his enemies in Germany, and set out for Italy to settle Clement in the papal chair. But, the gates of Rome being shut against him, he was obliged to attack it in form. The siege continued upwards of two years; Henry, during that time, being obliged to quell some insurrections in Germany. The city was at length carried by assault, and with difficulty saved from being pillaged; but Gregory was not taken: he retired into the castle of St. Angelo, and thence defied and excommunicated the conqueror. The new pope was, however, consecrated with the usual ceremonies; and expressed his gratitude by crowning Henry, with the concurrence of the Roman senate and people. Meanwhile the siege of St. Angelo was going on; but, the emperor being called into Lombardy, Robert Guiscard released Gregory, who died soon after at Salerno. His last words, borrowed from Scripture, were worthy of a better cause: ‘I have loved justice and hated iniquity; therefore I die in exile!’ Henry, however, did not enjoy all the advantages that might have been expected from the death of Gregory. In 1101 Pascal II. excited his son to rebel against him. The young prince persisted in his rebellion: and at last, having by feigned submissions prevailed on the emperor to disband his army, he treacherously seized and confined him. Henry, however, found means to escape from his confinement, and attempted to engage all the sovereigns of Europe in his quarrel; but, before any thing effectual could be done, he died at Liege in 1106.

Mr. Leckie, in his History of the Balance of Power in Europe, has some excellent reflections on the extraordinary success of Gregory in his attempts to aggrandise the papal see. ‘By degrees,’ he observes, ‘the popes extended themselves: like the jacobins of the French revolution, their policy was to excite sedition in all countries, and to establish their own influence every where. Gregory knew so well how to cover his ambition under the mask of religion, that he found means to engage every prince in Europe to acknowledge him as liege lord.

William the Conqueror was the only one who flatly refused his protection; but the successors of that prince had neither the power nor the firmness to reject this shameful servitude. The causes which operated to favor the growth of this extraordinary power were the barbarism and ignorance of the times, with its concomitant superstition. The pontiffs of those miserable times were almost adored as gods on earth. The rebellious and ambitious barons, in order to raise themselves and to humble their respective sovereigns, gave in to these impostures: and this is the source whence the electors, dukes, landgraves, margraves, &c., of Germany, have procured the sovereign authority which they now enjoy. They encouraged the priests in the dispute about investitures, in which the emperors were forced to yield; while the clergy fomented the refractory spirit of the nobility. This is the true origin of the weakness of Germany in our days, which has made it a hot-bed of dissension and cabal, and keeps the whole of that extensive country in disorder or war. When these little impotent princes lose a part of their territory they appeal to justice for the violence they have suffered: and an outcry is raised, because the little miserable duke of Saxony is obliged to cede a part of his territory to increase the stability of the whole European system.

‘The emperor,’ he continues, ‘being obliged to give up the patronage of the church to the pontiffs, tarnished the lustre of the imperial crown: and the subsequent cession of the sovereignty of Rome to the popes, by the house of Hapsburg, has completed the elevation of this non-descript and monstrous authority. How far justice was concerned in restoring this charlatan government in our days is a question which posterity will decide. It never did any thing but mischief as long as it had the means, and now that it is a cypher in the affairs of Europe it can do no good: by its existence it only fosters bigotry and ignorance. If the sovereigns flatter themselves that, by supporting its authority at the expense of human improvement, they will secure their own, they will be mistaken; if it be allowed to regain its influence on the vulgar it will again attempt to turn that very influence on their heads; it will renew all the impudent pretensions of past times, and teach the unlettered people to look to it for authority and protection.’

The dispute about investitures was not terminated by the deposition and death of Henry IV. His son Henry V. pursued the very same conduct for which he had deposed his father. Pascal opposed him with violence; upon which Henry gave him an invitation into Germany, to end the dispute in an amicable manner. Pascal did not accept of this invitation; but put himself under the protection of Philip I. of France, who undertook to mediate between the contending parties. This, however, proved ineffectual, and Henry was prevented by wars in Hungary and Poland from paying any further attention to the affair of investitures. At last, having settled the jarring interests of Germany, he resolved to go to Rome, to adjust the dispute personally with the pope. To give his arguments the greater weight, however he marched at the head of an army of

80,000 men. Pascal received him with great appearance of friendship, but would not renounce the claim of investitures; and Henry ordered the pope to be seized. The consul put the citizens in arms to defend the pope, and a battle was fought within the walls of Rome. The slaughter was so great that the waters of the Tiber were tinged with blood. The Romans were defeated, and Pascal was taken prisoner. The latter now renounced his right of investiture; solemnly swore never to resume it, and broke his oath as soon as Henry was gone, by fulminating the sentence of excommunication against him. In 1114 died the countess Matilda, who had bequeathed all her dominions to the pope; but, Henry thinking himself the only lawful heir, alleged, that it was not in Matilda's power to alienate her estates, which depended immediately on the empire. He therefore set out for Lombardy, and sent ambassadors to the pope, beseeching him to revoke the sentence of excommunication. Pascal, however, would not even favor the ambassadors with an audience; but, dreading the approach of Henry, he took refuge among the Norman princes in Apulia. The emperor arrived at Rome in 1117; but being soon after obliged to leave it, to settle some affairs in Tuscany, the pope returned to Rome, but died in a few days. On the third day after his decease, cardinal Cajetan was elected his successor and took the name of Gelasius II., but was instantly deposed by Henry; who set up the archbishop of Prague, as Gregory VIII. Gelasius, though supported by the Norman princes, was obliged to take refuge in France, where he died: and the archbishop of Vienna was elected by the cardinals then present under the name of Calixtus II.

This new pope attempted an accommodation with Henry; but, not succeeding, he excommunicated the emperor, the anti-pope, and his adherents. He next set out for Rome, where he was honorably received; and Gregory VIII. was forced to retire to Sutri, a strong town garrisoned by the emperor's troops. Here he was besieged by Calixtus and the Norman princes. The city was soon taken, and Gregory thrown into prison by his competitor; but at last, the states of the empire being wearied out with such a long quarrel, unanimously supplicated Henry for peace. He referred matters entirely to their decision; and, a diet being assembled at Wurtzburgh, it was decreed that an embassy should be immediately sent to the pope, desiring that he would convocate a general council at Rome, by which all disputes might be determined. This was accordingly done, and the affair of investitures at length regulated in the following manner, viz. That the emperor should leave the communities and chapters at liberty to fill up their own vacancies, without bestowing investitures with the cross and ring; that he should restore all that he had unjustly taken from the church; that all elections should be made in a canonical manner, in presence of the emperor or his commissaries; and whatever disputes might happen, should be referred to the decision of the emperor, assisted by the metropolitan and his suffragans; that the person elected should receive from the emperor the investiture of the fiefs and secular

rights, not with the cross, but with the sceptre; and should pay allegiance to him for these rights only. After the death of Henry V. the usual disorders took place in Italy: during which Roger, duke of Apulia, conquered Sicily, and assumed the right of creating popes, of whom there were two at that time, viz. Innocent II. and Anacletus. Roger drove out the former, and Lothario emperor of Germany the latter, forcing Roger himself at the same time to retire into Sicily. The emperor then conducted Innocent back to Rome in triumph; and having subdued all Apulia, Calabria, and the rest of Roger's Italian dominions, erected them into a principality, and bestowed it, with the title of duke, upon Renaud a German prince, and one of his own relations. In the reign of Conrad III., who succeeded Lothario, the celebrated factions called the Guelphs and Gibelins arose, which for many years deluged the cities of Italy with blood. See CONRAD III., GERMANY, and GUELPHS. They took their origin during a civil war in Germany, when the emperor's enemies were styled Guelphs, and his friends Gibelins; and these names were quickly received into Italy and other parts of the emperor's dominions.

7. From the time of Conrad III. to the expedition of Henry VII.—Of this civil war many of the cities of Italy took the advantage to assert their independence; neither was it in the power of Conrad, who during his whole reign was employed in unsuccessful crusades, to reduce them; but in 1158 Frederick Barbarossa, successor to Conrad, entered Italy at the head of a very numerous and well-disciplined army. It was divided into several columns, for the convenience of entering the country by as many different routes. Having passed the Alps, he reduced the town of Brescia; and, continuing to advance, besieged Milan, which surrendered at discretion. He was crowned king of Lombardy at Monza; and, having made himself master of all the other cities of that country, he ordered a minute enquiry to be set on foot concerning the rights of the empire, exacting homage of all those who held of it, without excepting even the bishops. Grievances were redressed; magistracies reformed; the rights of regality discussed and ascertained; new laws enacted for the maintenance of public tranquillity and the encouragement of learning, which now began to revive in the school of Bologna: above all, subvassals were not only prohibited from alienating their lands, but also compelled, in their oath to their lords paramount, to except the emperor by name, when they swore to serve and assist them against all their enemies. The pope took umbrage at this behaviour towards the ecclesiastics: but Frederick justified what he had done, telling his deputies that Jesus Christ himself, though the lord of all the sovereigns upon earth, had designed to pay for himself and St. Peter the tribute which was due to Cæsar. But, Frederick having sent commissioners to superintend the election of new magistrates at Milan, the inhabitants were so much provoked at this infringement of their old privileges, that they insulted the imperialists, revolted, and refused to appear before the emperor's tribunal. This he highly resented, and resolved to chastise them: for which pur-

pose he sent for a reinforcement to Germany, which soon after arrived with the empress; while he himself ravaged Liguria, declared the Milanese rebels to the empire, and plundered and burnt the city of Crema, which was in alliance with Milan. In the mean time, Adrian IV. dying, two opposite factions elected two new popes, known by the names of Victor II. and Alexander III. The emperor's allies necessarily acknowledged the pope chosen by him; and those princes who were jealous of the emperor acknowledged the other. The bulls of Victor II., Frederick's pope, were received in Germany, Bohemia, and one half of Italy, while the rest submitted to Alexander III. The emperor took a severe revenge on his enemies; Milan was razed from its foundation, and salt strewed on its ruins; Brescia and Placentia were dismantled; and the other cities which had taken part with them were deprived of their privileges.

Alexander III., however, who had excited the revolt, returned to Rome after his rival's death; and the civil war was renewed. The emperor caused another pope, and after his death a third, to be elected. Alexander then fled to France, the common asylum of the popes when oppressed by the emperors; but the flames of civil discord which he had raised continued daily to spread. In 1168 the cities of Italy, supported by the Greek emperor and the king of Sicily, entered into an association for the defence of their liberties; and the pope's party prevailed. In 1176 the imperial army, worn out by fatigues and diseases, was defeated by the confederates, and Frederick himself narrowly escaped. About the same time he was defeated at sea by the Venetians; and his eldest son Henry, who commanded his fleet, fell into the hands of the enemy. The pope, in honor of this victory, sailed out into the open sea, accompanied by the whole senate; and, after having pronounced a thousand benedictions on that element, threw into it a ring as a mark of his gratitude and affection. Hence the origin of that ceremony which was annually performed by the doge of Venice, under the notion of espousing the Adriatic. These misfortunes disposed the emperor to a reconciliation with the pope; but, considering it below his dignity to make an advance, he rallied his troops, and exerted himself with so much vigor in repairing his losses, that the confederates were defeated: after which he made proposals of peace, which were joyfully accepted, and Venice was appointed for the place of reconciliation. Here the emperor, the pope, and many princes and cardinals, attended; and the emperor put an end to the dispute, by acknowledging the pope, kissing his feet, and holding his stirrup while he mounted his mule. This reconciliation was attended with the submission of all the towns of Italy which had entered into an association for their mutual defence. They obtained a general pardon, and were left at liberty to use their own laws and forms of government, but were obliged to take the oath of allegiance to the emperor as their superior lord. Calixtus, the anti-pope, finding himself abandoned by the emperor, made also his submission to Alexander, who received him with great humanity; and to prevent for the future similar disturbances from

attending the elections of the popes, he called a general council, in which it was decreed, that no pope should be deemed duly elected without having two-thirds of the votes in his favor. The affairs of Italy being thus settled, Barbarossa returned to Germany, and, having quieted some disturbances which had arisen during his absence in Italy, at last undertook an expedition into the Holy Land; where in the year 1190, he was drowned as he was swimming in the Cydiums.

He was succeeded by his son Henry VI. who at the same time became heir to the dominions of Sicily in right of his wife, daughter of William king of that country. After settling the affairs of Germany, the new emperor marched with an army into Italy, to be crowned by the pope, and to recover the succession of Sicily, which was usurped by Tancred, his wife's brother. For this purpose, he endeavoured to conciliate the affections of the Lombards, by enlarging the privileges of Genoa, Pisa, and other cities, in his way to Rome; where the ceremony of the coronation was performed by Celestine III. on the day after Easter in 1191. The pope, then in the eighty-sixth year of his age, had no sooner placed the crown upon Henry's head than he struck it off again, it is said, with his foot, as a testimony of the power residing in the sovereign pontiff to make and unmake emperors at his pleasure. The coronation being over, Henry prepared for the conquest of Naples and Sicily; but in this he was opposed by the pope; for though Celestine considered Tancred as a usurper, and desired to see him deprived of the crown of Sicily, which he claimed as a fief of the holy see, yet he was much more averse to the emperor's being put in possession of it, as that would render him too powerful in Italy. Henry, however, without regarding the threats or remonstrances of his holiness, took almost all the towns of Campania, Calabria, and Apulia; invested the city of Naples; and sent for the Genoese fleet, which he had before engaged, to come and form the blockade by sea; but, before its arrival, he was obliged to raise the siege, in consequence of a dreadful mortality among his troops: and all his future attempts upon Sicily were, during the life of Tancred, ineffectual. The whole reign of Henry from this time seems to have been a continual train of the most abominable perfidies and cruelties. Having treacherously seized and imprisoned Richard I. of ENGLAND (see that article), he had no sooner received the ransom paid for his royal captive, than he made new preparations for the conquest of Sicily. As Tancred died about this time, the emperor, with the assistance of the Genoese, accomplished his purpose. The queen dowager surrendered Salerno, and her right to the crown, on condition that her son William should possess the principality of Tarentum; but Henry no sooner found himself master of the place, than he ordered the infant king to be castrated, to be confined in a dungeon, and to have his eyes put out. The royal treasure was transported to Germany, and the queen and her daughter confined in a convent.

In the mean time the empress, though near the age of fifty, was delivered of a son, named Frederick; and Henry soon after assembled a

diet of the princes of Germany, to whom he proposed rendering the imperial crown hereditary, to prevent those disturbances which usually attended the election of emperors. A decree passed for this purpose; and Frederick, yet in his cradle, was declared king of the Romans. Soon after, the emperor, being solicited to undertake a crusade, obeyed the injunctions of the pope, but in such a manner as to make it turn out to his own advantage. He convoked a general diet at Worms; where solemnly declaring his resolution of employing his whole power, and even of hazarding his life for the accomplishment of so holy an enterprise, he expatiated upon the subject with so much eloquence, that almost the whole assembly took the cross. Nay, such multitudes from all the provinces of the empire enlisted, that Henry divided them into three large armies; one of which, under the bishop of Mentz, took the route of Hungary, where it was joined by Margaret, queen of that country, who entered herself in this pious expedition, and actually ended her days in Palestine: the second was assembled in Lower Saxony, and embarked in a fleet furnished by the inhabitants of Lubec, Hamburg, Holstein, and Friezland; and the emperor conducted the third into Italy, to take vengeance on the Normans in Naples and Sicily, who had risen against his government. The rebels were humbled; and their chiefs were condemned to perish by the most excruciating tortures. One Jornandi, of the house of the Norman princes, was tied naked on a chair of red hot iron, and crowned with a coronet of the same burning metal, which was nailed to his head. The empress Constantia, shocked at such cruelty, renounced her faith to her husband, and encouraged her countrymen to recover their liberties. Resolution sprung from despair. The inhabitants took arms; the empress headed them; and Henry, having dismissed his troops, no longer necessary to his bloody purposes, and sent them to pursue their expedition to the Holy Land, was obliged to submit to his wife, and to the conditions which she imposed on him in favor of the Sicilians. He died at Messina in 1197; and, as was supposed, of poison administered by the empress.

Henry's son, Frederick II., having been declared king of the Romans, became emperor on the death of his father; but as he was yet a minor the administration was committed to his uncle Philip, duke of Suabia, both by the will of Henry and by an assembly of the German princes. Other princes, however, incensed to see an elective empire become hereditary, held a new diet at Cologne, and chose Otho, duke of Brunswick, son of Henry the Lion. Frederick's title was confirmed in a third assembly, at Arnsburg; and his uncle Philip was elected king of the Romans, to give greater weight to his administration. These elections divided the empire into two powerful factions, and involved all Germany in ruin and desolation. Innocent III., who had succeeded Celestine in the papal chair, favored Otho, and excommunicated Philip and all his adherents. This able and ambitious pontiff was a sworn enemy of the house of Suabia; not from any personal animosity, but out of a principle

of policy. That house had long been terrible to the popes, by its continual possession of the imperial crown; and the accession of the kingdom of Naples and Sicily made it still more to be dreaded. Innocent III., therefore, gladly seized the favorable opportunity for divesting it of the empire, by supporting the election of Otho, and sowing divisions among the Suabian party. Otho was also patronised by his uncle the king of England; which naturally inclined the king of France to the side of his rival. Faction clashed with faction; friendship with interest; caprice, ambition, or resentment, gave the sway; and nothing was beheld on all hands but the horrors and the miseries of civil wars. Meanwhile the empress Constantia remained in Sicily, where all was peace, as regent and guardian for her infant son, Frederick II., who had been crowned king of that island, with the consent of pope Celestine III. But she also had her troubles. A new investiture from the holy see being necessary, on the death of Celestine III. Innocent III., his successor, took advantage of the critical situation of affairs for aggrandizing the papacy, at the expense of the kings of Sicily. They possessed the privilege of filling up vacant benefices, and of judging all ecclesiastical causes in the last appeal; they were really popes in their own island, though vassals of his holiness. Innocent pretended that these powers had been surreptitiously obtained; and demanded that Constantia should renounce them in the name of her son, and do homage for Sicily. But before any thing was settled the empress died, leaving the regency to the pope; so that he was enabled to prescribe his own conditions to young Frederick. The troubles of Germany still continued; and the pope redoubled his efforts to detach the princes and prelates from the cause of Philip, notwithstanding the remonstrances of the king of France, to whom he proudly replied, 'Either Philip must lose the empire, or I the papacy.' But all these dissensions and troubles in Europe did not prevent the formation of another crusade, for the recovery of the Holy Land.

Those who took the cross were principally French and Germans: Baldwin, count of Flanders, was their commander; and the Venetians, as greedy of wealth and power as the ancient Carthaginians, furnished them with ships, for which they took care to be amply paid both in money and territory. The Christian city of Zara, in Dalmatia, had withdrawn itself from the government of the republic: the army of the cross undertook to reduce it to obedience; and it was besieged and taken, notwithstanding the threats and excommunications of the pope. While the crusaders were spreading desolation through the east, Philip and Otho were desolating the west. At length Philip prevailed; and Otho, obliged to abandon Germany, took refuge in England. Philip confirmed his election by a second coronation, and proposed an accommodation with the pope; but, before this could be brought about, he fell a sacrifice to private revenge, being assassinated by the count Palatine of Bavaria, whose daughter he had promised to marry, but afterwards rejected. Otho returned

to Germany on the death of Philip; married that prince's daughter, and was crowned at Rome by pope Innocent III., after yielding to the holy see the long disputed inheritance of the countess Matilda, and confirming the rights and privileges of the Italian cities. But these concessions were only a sacrifice to present policy: Otho, therefore, no sooner found himself in a condition to act offensively, than he resumed his grant; and in 1210 not only recovered the possessions of the empire, but made hostile incursions into Apulia, ravaging the dominions of young Frederick, king of Sicily, who was under the protection of the holy see. For this reason he was excommunicated by Innocent; and Frederick, now seventeen years of age, was elected emperor by the diet. Otho, however, on his return to Germany, finding his party still considerable, and not doubting that he should be able to humble his rival by means of his superior force, entered into an alliance with his uncle John, king of England, against Philip Augustus of France, A.D. 1213. The unfortunate battle of Bouvines, where the confederates were defeated, completed the fate of Otho IV. He attempted to retreat into Germany, but was prevented by young Frederick; who had marched into the empire at the head of a powerful army, and was every where received with open arms. Thus abandoned by all the princes of Germany, and altogether without resource, Otho retired to Brunswick, where he lived four years as a private man, dedicating his time to religion.

Frederick II., being now universally acknowledged emperor, was crowned at Aix-la-Chapelle in 1215, with great magnificence; when, to preserve the favor of the pope, he added to the other solemnities of his coronation, a vow to go in person to the Holy Land. The bad success of this expedition is taken notice of under the article CRUSADE. The emperor had, on various pretences, refused to go into the east; and, in 1225, the pope, incensed at the loss of Damietta, wrote a severe letter to him, taxing him with having sacrificed the interests of Christianity, by delaying so long the performance of his vow, and threatening him with excommunication if he did not instantly depart with an army into Asia. Frederick, exasperated at these reproaches, renounced all correspondence with the court of Rome; renewed his ecclesiastical jurisdiction in Sicily; filled up vacant sees and benefices; and expelled some bishops, who were creatures of the pope. The pope at first threatened the emperor with the thunder of the church, for presuming to lift up his hand against the sanctuary; but, finding Frederick not to be intimidated, he became sensible of his own imprudence in wantonly incurring the resentment of so powerful a prince, and tried to soothe him by submissive apologies. They were accordingly reconciled, and conferred together at Veroli in 1226; where the emperor, as a proof of his sincere attachment to the holy see, published some severe edicts against heresy. A solemn assembly was afterwards held at Ferentino, where both the pope and the emperor were present, together with John de Brienne, titular king of Jerusalem, who was come to Europe to demand succours against

the sultan of Egypt. John had an only daughter named Yolanda, whom he proposed as a wife to the emperor, with the kingdom of Jerusalem as her dower, on condition that Frederick should within two years perform the vow he had made to lead an army into the Holy Land. Frederick married her on these terms, and since that time the kings of Sicily have taken the title of king of Jerusalem; but he was in no hurry to conquer his wife's portion. The chief cities of Lombardy had entered into a secret league to renounce his authority. He convoked a diet at Cremona, where all the German and Italian noblemen were summoned to attend. A variety of subjects were there discussed; but nothing of consequence was settled. An accommodation, however, was soon after brought about by the mediation of the pope; who, as umpire of the dispute, decreed, that the emperor should lay aside his resentment against the confederate towns, and that they should furnish and maintain 400 knights for the relief of the Holy Land. Peace being thus concluded, Honorius reminded the emperor of his vow; Frederick promised compliance: but his holiness died before he could see the execution of it. He was succeeded by Gregory IX. brother of Innocent III.; who, pursuing the same line of policy, urged the departure of Frederick for the Holy Land, and, finding the emperor backward, declared him incapable of the imperial dignity, as having incurred the sentence of excommunication. Frederick, incensed at such insolence, ravaged the patrimony of St. Peter, and was actually excommunicated. The animosity between the Guelphs and Gibelines revived; the pope was obliged to quit Rome; and Italy became a scene of war and desolation, or rather of a hundred civil wars; which, by inflaming the minds and exciting the resentment of the Italian princes, accustomed them to the horrid practices of poisoning and assassination. During these transactions, Frederick, to remove the cause of all these troubles, and gratify the prejudices of a superstitious age, by the advice of his friends resolved to perform his vow: and he accordingly embarked for the Holy Land, leaving the affairs of Italy to the management of Renaldo, duke of Spoleto.

The pope, however, prohibited the emperor's departure before he should be absolved from the censures of the church; but Frederick went in contempt of the church, and succeeded better than any person who had gone before him. He did not indeed desolate Asia, and gratify the barbarous zeal of the times by spilling the blood of infidels; but he concluded a treaty with Miliden, soldau of Egypt and master of Syria; by which the end of his expedition seemed fully answered. The soldau ceded to him Jerusalem and its territory as far as Joppa; Bethlehem, Nazareth, and all the country between Jerusalem and Ptolemais; Tyre, Sidon, and the neighbouring territories: in return for which, the emperor granted the Saracens a truce of ten years; and in 1230 returned to Italy. Frederick's reign, after his return from the east, was one continued quarrel with the popes. The cities of Lombardy had revolted during his absence, at the instiga-

tion of Gregory IX.; and, before they could be reduced, he excited the emperor's son Henry, who had been elected king of the Romans, to rebel against his father. The rebellion was suppressed, the prince was confined, and the emperor obtained a complete victory over the associated towns. But his troubles were not yet ended. The pope excommunicated him anew, and sent a bull, filled with the most absurd and ridiculous language, into Germany, in order to sow division between Frederick and the princes of the empire. Frederick retorted in the same strain, in his apology to the princes of Germany, calling Gregory the Great Dragon, the Antichrist, &c. The emperor's apology was sustained in Germany; and, finding he had nothing to fear from that quarter, he resolved to take ample vengeance on the pope and his associates. For that purpose he marched to Rome, where he thought his party was strong enough to procure him admission; but his favorite scheme was defeated by the activity of Gregory, who ordered a crusade to be preached against the emperor, as an enemy of the Christian faith; a step which incensed Frederick so much, that he ordered all his prisoners, who wore the cross, to be exposed to the most cruel tortures. The two factions of the Guelphs and Gibelines continued to rage with greater violence than ever, involving cities, districts, and even private families, in divisions and butchery; no quarter being given on either side. Meanwhile Gregory IX. died, and was succeeded in the see of Rome by Celestine IV., and afterwards by Innocent IV., formerly cardinal Fiesque, who had always expressed the greatest regard for the emperor and his interest. Frederick was accordingly congratulated upon this occasion: but, having more penetration than those about him, he replied, 'I see little reason to rejoice; the cardinal was my friend, but the pope will be my enemy.'

Innocent soon proved the justice of this conjecture. He attempted to negotiate a peace for Italy; but not being able to obtain from Frederick his exorbitant demands, and in fear for the safety of his own person, he fled into France, assembled a general council at Lyons, and in 1245 deposed the emperor. Conrad, the emperor's second son, had already been declared king of the Romans, on the death of his brother Henry, which soon followed his confinement: but, the empire being now declared vacant by the pope, the German bishops (for none of the princes were present), at the instigation of his holiness, proceeded to the election of a new emperor; and they chose Henry, landgrave of Thuringia, who was styled, in derision, the king of priests. Innocent now renewed the crusade against Frederick. It was proclaimed by the preaching friars, since called Dominicans, and the minor friars, known by the name of Cordeliers or Franciscans. The pope, however, did not confine himself to these measures only, but engaged in conspiracies against the life of an emperor who had dared to resist the decree of a council, and oppose the whole body of the monks and zealots. Frederick's life was several times in danger from plots, poisonings, and assassination; which induced him, it is said, to make choice of Mahomedan guards, who, he was certain, would

not be under the influence of the prevailing superstition. About this time the landgrave of Thuringia dying, the same prelates who had taken the liberty of creating one emperor made another; namely, William, count of Holland, a young nobleman of twenty years of age, who bore the same contemptuous title with his predecessor. Fortune, which had hitherto favored Frederick, seemed now to desert him. He was defeated before Parma, which he had long besieged; and, to complete his misfortune, he soon after learned that his natural son Entius, whom he had made king of Sardinia, was defeated and taken prisoner by the Bolognese. In this extremity Frederick retired to his kingdom of Naples, to recruit his army; and there died of a fever in the year 1250.

The affairs of Germany now fell into the utmost confusion, and Italy continued long in the same distracted state in which he had left it. The clergy took arms against the laity; the weak were oppressed by the strong; and all laws, divine and human, were disregarded. After the death of Frederick's son Conrad, who had assumed the imperial dignity as successor to his father, and the death of his competitor William of Holland, a variety of candidates appeared for the empire, and several were elected by different factions; among whom was Richard, earl of Cornwall, brother to Henry II. king of England; but no emperor was properly acknowledged till the year 1273, when Rodolph, count of Hapsburgh, was unanimously raised to the vacant throne. During the interregnum which preceded the election of Rodolph, Denmark, Holland, and Hungary, entirely freed themselves from the homage they were wont to pay to the empire; and much about the same time several German cities erected a municipal form of government, which still continues. Lubeck, Cologne, Brunswick, and Dantzic, united for their mutual defence against the encroachments of the great lords, by a famous association, called the Hanseatic league: these towns were afterwards joined by eighty others, belonging to different states, which formed a kind of commercial republic. See HANSE. Italy also, during this period, assumed a new plan of government. That freedom for which the cities of Lombardy had so long struggled was confirmed to them for a sum of money: they were emancipated by the fruits of their industry. Sicily likewise changed its government and its prince. See SICILY. From the time of Frederick II. we may date the ruin of the German power in Italy. The Florentines, the Pisans, the Genoese, the Lucans, &c., became independent, and could not again be reduced. The power of the emperor, in short, was in a manner annihilated, when Henry VII. undertook to restore it in the beginning of the fourteenth century. For this purpose a diet was held at Frankfort, where proper supplies being granted for the emperor's journey, well known by the name of the Roman expedition, he set out for Italy, accompanied by the dukes of Austria and Bavaria, the archbishop of Triers, the bishop of Liege, the counts of Savoy and Flanders, and other noblemen, together with the militia of all the imperial towns.

8. Italy, from the pontificate of Clement V. to the present period.—Italy was still divided by the factions of the Guelphs and Gibelines, who butchered one another without humanity or remorse. But their contest was no longer the same; it was not now a struggle between the empire and the priesthood, but between faction and faction, inflamed by mutual jealousies and animosities. Pope Clement V. had been obliged to leave Rome, which was in the anarchy of popular government. The Colonnas, the Ursini, and the Roman barons, divided the city; and this division was the cause of a long abode of the popes in France, so that Rome seemed equally lost to the popes and the emperors. Sicily was in the possession of the house of Arragon, in consequence of the horrid massacre called the Sicilian vespers, by which that island was delivered from the tyranny of the French. See SICILY. Carobert, king of Hungary, disputed the kingdom of Naples with his uncle Robert, son of Charles II. The house of Este had established itself at Ferrara; and the Venetians wanted to make themselves masters of that country. The old league of the Italian cities no longer existed. It had been formed with no other view than to oppose the emperors; and, since they had neglected Italy, the cities were wholly employed in aggrandising themselves, at the expense of each other. The Florentines and the Genoese made war upon the republic of Pisa. Every city was also divided into factions within itself. In the midst of these troubles Henry VII. appeared in Italy in 1311, and caused himself to be crowned king of Lombardy at Milan. But the Guelphs had concealed the old iron crown of the Lombard kings, as if the right of reigning there was attached to a small circlet of metal.

Henry ordered a new crown to be made, with which the ceremony of inauguration was performed. Cremona was the first place that ventured to oppose the emperor. He reduced it by force, and laid it under heavy contributions. Parma, Vicenza, and Placentia, made peace with him on reasonable conditions. Padua paid 100,000 crowns, and received an imperial officer as governor. The Venetians presented Henry with a large sum of money, an imperial crown of gold enriched with diamonds, and a chain of very curious workmanship. Brescia made a desperate resistance, and sustained a severe siege; in the course of which the emperor's brother was slain, and his army diminished to such a degree that the inhabitants marched out under the command of their prefect Thibault de Drussati, and gave him battle; but they were repulsed with great loss, after an obstinate engagement; and at last obliged to submit, and their city was dismantled. From Brescia Henry marched to Genoa, where he was received with expressions of joy, and splendidly entertained. He next proceeded to Rome; where, after much bloodshed, he received the imperial crown from the hands of the cardinals. Clement V., who had originally invited Henry into Italy, growing jealous of his success, had leagued with Robert king of Naples and the Ursini faction, to oppose his entrance into Rome. He entered it in spite of them by the assistance of the Co-

lonnas. Now master of that ancient city, Henry appointed a governor; and ordered, that all the cities and states of Italy should pay him an annual tribute. In this order he comprehended the kingdom of Naples, to which he was going to make good his claim of superiority by arms, when he died at Benevento in 1313, as is commonly supposed of poison, given him by a dominican friar in the consecrated wine of the sacrament.

The efforts of Henry VII. were unable to restore the imperial power to Italy. From this time the authority of the emperor in that country consisted in a great measure in the convenience which the Gibelines found in opposing their enemies under the sanction of his name. The power of the pope was much of the same nature. He was less regarded in Italy than in any other country in Christendom. There was indeed a great party who called themselves Guelphs; but they affected this distinction only to keep themselves independent of the imperialists; and they paid little more acknowledgment to his holiness than sheltering themselves under his name and authority. The most desperate wars were carried on by the different cities against each other; in which Castruccio Castracani, and Sir John Hawkwood, an Englishman, are celebrated as heroes. A detail of these transactions would furnish materials for many volumes; and is yet of little importance, as nothing material was effected by the utmost efforts of valor, and the belligerent states were commonly obliged to make peace without any advantage on either side. By degrees, however, this martial spirit subsided; and, in the year 1492, the Italians were so little capable of resisting an enemy, that Charles VIII., of France conquered the whole kingdom of Naples in six weeks, and might easily have subdued the whole country, had it not been for his own imprudence. Other attempts on Italy were made by Louis XIII., and Francis I. See FRANCE.

In the reigns of Louis XIII. and XIV. an obstinate war was carried on between the French and Spaniards, in which the Italian states bore a considerable share. The war concluded in 1660, with very little advantage to the French, who have been often unsuccessful in their Italian wars. The same ill success attended them in that part of the world, in the war which commenced between Britain and Spain in 1740. But the particulars of these wars, with regard to the different states of Italy, fall to be considered under the history of those states into which this country has been divided in modern times, viz. SARDINIA, MILAN, GENOA, VENICE, TUSCANY, LUCCA, ST. MARINO, PARMA, MANTUA, MODENA, ROME, and NAPLES. No period of the history of Italy, it may be here added, however, has been of more importance, or afforded a more rapid succession of astonishing events, since the fall of the Roman empire, than that which has elapsed since the revolution of France. The whole of the independent states have been repeatedly changed into republics and monarchies of various extent and denomination, and have been parcelled out in such forms and magnitudes as suited the caprice of Napoleon, or the allied powers.

9. Italy. Its modern divisions and statistics.—At the period of the French revolution Lombardy contained seven duchies; viz. Savoy, Piedmont, Montserrat, Milan, Mantua, Modena, Parma, and Placentia. The first three, and part of the fourth, belonged to Sardinia; the rest to the emperor of Germany. In 1797 Buonaparte formed the Austrian, with part of the Venetian and the ecclesiastical states, into the Cisalpine republic, which comprised twelve departments. In northern Italy, at this time, were also the republics of Genoa and Lucca.

Central Italy was occupied by the papal states; the small republic of Marino, under the pope's protection; part of the Venetian territory, Istria, Dalmatia, Ragusa, and Tuscany. The short-lived kingdom of Etruria was formed out of the last-mentioned dukedom, Parma, Placentia, and Guastalla. Naples occupied then, as now, the southern division of Italy. By the arrangements of the congress of Vienna, the king of Sardinia was reinstated in his dominions nearly as they existed in 1792. To the emperor of Austria were assigned the Venetian states, the territory between the Tessino, the Po, and the Adriatic, with the valleys of Valteline, Bornio, and Chiavenna. The arch-duke, Francis D'Est, was created grand duke of Modena; and the arch-duchess, Maria Beatrice D'Est, became hereditary sovereign of the duchy of Massa, and the principal city of Carrara, with the Imperial fiefs in La Lunigiana. The arch-duchess Maria Louisa, late empress of France, was made sovereign of the duchies of Parma, Placentia, and Guastalla. The archduke Ferdinand of Austria regained the grand duchy of Tuscany, and the principality of Piombino, with that part of Elba which belonged to the king of the two Sicilies. The pope acquired the Marshes with their dependencies; and Ferdinand IV., king of the two Sicilies, returned to the throne of Naples.

The following table exhibits the existing political divisions of Italy, with their respective populations, not subject to Foreign Powers.

Governments.	Sq.miles.	Population.
1. Lombardo - Venetian kingdom	18,660	4,930,000
2. Kingdom of Sardinia	27,400	3,300,000
3. States of the Church, or Pope's Dominions	14,500	2,590,000
4. Kingdom of the Two Sicilies	43,500	7,420,000
5. GrandDuchyofTuscany	9,270	1,275,000
6. States of Modena	2,480	379,000
7. States of Pama	2,300	410,000
8. Duchy of Lucca	430	143,000
9. Republic of San Marino	40	7,000
10. Princip. Monaco	38	6,500
	118,610	20,920,500

The Alps and Appennines diversify this peninsula with almost every possible combination of hill and valley, rivers, lakes, and romantic scenery. Northern Italy is broken into bold and rugged acclivities by the former; from the southern face of which descend the streams that form the Po and various other classical rivers.

At the head of the gulf of Genoa the latter spring, and extending through the whole of the centre, and the south of this delightful region, yield the sources of the Arne and the Tiber on the west, and numerous smaller, but equally beautiful streams, which flow into the Adriatic. Towards the southern extremity of Italy, the Appennines diverge into two branches, one of which advances eastward to Capo de Leuca, and the other southward to the straits of Messina. Several detached mountains, among which is the celebrated Vesuvius, here over-hang the gulf of Naples, and discharge their liquid fires into its waters. The Appennines are, in many parts, clothed with trees to their summits; in other places they are more precipitous, and attain the altitude of ice and snow. This range receives a variety of different names in the regions through which it passes. But see our articles ALPS and APPENNINES. The other large rivers of Italy are the Adige, the Brenta, the Piave, and the Tagliamento, all flowing southward from the Alps. In the narrow centre, or south of Italy, no great river can be expected to arise. In Naples, the only streams which deserve the name of rivers are the Vulturno, the Garigliano, anciently the Liris, and the Ofanto, formerly the Aufidus, which flows past Campania. The rivers which descend from the Appennines are apt, like other mountain currents, to swell suddenly, and to cause inundation in the level parts of the country, particularly towards the mouth of the Po. Here, therefore, large dykes or embankments abound.

The principal lakes of Italy northward are those of Garda, Maggiore, or Lutino, Lugano, Como, Lecca, and Iseo. In the centre and south are Perugia, the ancient Thrasimene, Bolsena, Castel Gondolfo, Bracciano, Celano, Varrano, and Averno. They add to the beauty of the scenes around them in a manner indescribably enchanting.

Italy, as to climate, has been divided into four separate regions. The first of these embraces the basin of the Po, extending about 260 miles in length, and 150 in its greatest breadth; being bounded by the Alps and Appennines on the north-west and south, and open to the Adriatic on the east. Here the atmosphere is uniformly serene and bright; and, being tempered by refreshing breezes from the adjacent heights, the climate is altogether one of the most salubrious and delightful in the whole world. The second region includes the Tuscan and Roman territories, being screened on the north by the Appennines, and more exposed to the heats of summer than to the rigors of winter. Frost and snow are here experienced; but the temperature is sufficient to mature the orange, the fig, and similar fruits. The third district contains Campania Felix, and its dependencies, where the vegetable treasures of nature are also found in the greatest perfection, the air uniformly mild and serene, and a peculiar glow of beauty pervades the landscape. The fourth division extends from the Appennines to the Adriatic, and embraces the southern districts of the peninsula. Warmer than any of the others, it yields the aloe, the palm, and other productions of a southern climate; but here, when the sirocco blows, the heats are overwhelming.

to a stranger from almost any other part of Europe. The climate of Italy also experiences much diversity from elevation and local circumstances. Generally the sea breeze, which rises about eight in the morning and continues till four in the afternoon, prevents even the hottest months from being oppressive.

Rain does not fall frequently in Italy during the summer months, but in autumn the showers are regular and heavy, succeeded by the inundations of the winter. In the summer and autumn months several districts are, notwithstanding the general salubrity, unhealthy; particularly the quarter called the Maremma, extending all the way from Leghorn to Terracina, on the Neapolitan frontier, a distance of 200 miles, and having its greatest breadth, about forty miles, in the Campagna di Roma. The prevailing disorder is an intermitting fever of the worst kind; the cause of which has not been accurately ascertained, but is, perhaps, to be sought in the pestilential air of the stagnant marshes. The most important productions of Italy are its vines and olives; other delicious fruit is also yielded in great variety; but corn is not so generally grown as in the more northern countries of Europe; pulse and other vegetables, however, abound; and cotton and silk are largely cultivated. Lombardy is the best corn country; in the Genoese and Tuscan territories the culture of fruit predominates; while the unhealthy district of the western coast from Leghorn to Terracina, and reaching inland to the first chain of the Apennines, remains chiefly in a state of pasture. Skilful agriculture is confined to the north. In this direction, and towards the German frontier, as well as in the Venetian and Genoese territory, and Tuscany, there are quarries of beautiful marble; caverns of stalactites are often met with in other parts. In the Apennines are found agate, alabaster, jasper, chalcedony, rock-crystal, crysolite, lapis lazuli, and other valuable stones; these mountains also abound in basalt, dried lava, pozzolana sand, sulphur, and volcanic matter. Other mineral productions of Italy are alum, copper, and iron. Piedmont is the richest mineralogical region in Italy, and next to it the Milanese. Sicily abounds in valuable minerals, and Sardinia is understood to have mines of gold and silver; but they are little known. Mineral springs, both cold and hot, are found in various parts. Herds of black cattle, sheep, and goats, stock the pastures. But few horses appear, and the breed is of little estimation. Mules are more common, being better adapted to the bad and mountainous roads. The operations of agriculture are extensively performed by oxen; and here the buffalo is found, though hardly in any other part of Europe. Swine are fed in large herds in Calabria; and the mountains and woods contain a number of wild animals.

Silks and velvets are the staple manufactures of Italy: in Tarento they make a coarse muslin; and at Teramo, in Abruzzo, are some celebrated potteries. In the southern provinces of Sorrento and Otranto cotton is manufactured; and at Nardo and Gallatona coverlets are made, which are exported to all parts. The porcelain of Naples is also superior. Besides these, there

are woollen and silk manufactures at Florence, and a considerable number of artisans, who live by making vases, statues, and other models of the fine arts. At Venice the chief manufactures are silk, velvets, glass, and beads. Its commerce, however, is now almost annihilated. In the Veronese, it is computed, they make 100,000 ounces of silk annually.

The value of the silk produced in the Milanesi is computed at not less than £300,000 annually, a considerable part of which is exported. Considerable manufactures of mosaic, china, and other ornaments, are also found at Milan. Bergamo had a woollen manufacture of great antiquity, and it is not yet entirely decayed; its export of silk sometimes amounts to £300,000 annually. It, as well as Brescia, has a manufactory of iron and steel. In the states of the church a manufacture of mosaics, cameos, necklaces, &c., is carried on, especially at Rome; and Bologna employs 7000 or 8000 persons in crepes and gauzes, which are very beautiful. Piedmont exports unwrought silk annually to the amount of 17,000,000 livres, or £748,000 sterling, and about £30,000 worth of damasks. The velvets and damasks of Genoa also preserve their ancient reputation; and beautiful silk stuffs are manufactured at Lucca. The articles most frequently shipped from England to Italy are coffee, sugar, and colonial produce; woollens, muslins, linens, calicoes, hardware, and dyestuffs: also fish, dried and salted. The average value of imports from England and her colonies is necessarily fluctuating, but seldom amounts to £1,000,000 sterling. The principal commercial towns are Naples, Venice, Genoa, Leghorn, Milan, Verona, Bologna, Florence, Civita Vecchia, Ancona, Lucca, and in Sicily, Messina and Palermo.

'To the ancient Italians,' says Mr. Eustace, 'we owe the plainest, the noblest, the most majestic language ever spoken; to the modern we are indebted for the softest and sweetest dialect which human lips ever uttered. The ancient Romans raised the Pantheon, the modern erected the Vatican. The former boast of the age of Augustus, the latter glory in that of Leo. The former have given us Virgil, the latter Tasso. In which of these respects are the modern Italians unworthy of their ancestors? If our estimate of modern Italy is not so flattering as this comparison appears, that it has produced many elegant writers in natural and general history, antiquities, political economy, and various branches of literature, cannot be denied. The memoirs of the academies of Mantua, Milan, Turin, and particularly of Verona, contain most valuable papers. Those of Bologna and Florence have also been distinguished for their scientific researches; and the Royal Institute at Naples has produced many excellent mathematical treatises. No country of modern Europe in fine has surpassed Italy in the number of her eminent men in literature, and the fine arts. Nor does any exceed her in the number of universities and learned societies; the chief of which are those of Rome, Venice, Florence, Mantua, Padua, Parma, Verona, Milan, Pavia, Bologna, Ferrara, Pisa, Naples, Salerno, and Perugia. The various schools of painters

sculptors, and architects, which owe their origin to Italy, are the admiration of the world.

While the established religion throughout Italy is the Roman Catholic, all other sects are now tolerated : the number of archbishops in the whole country is thirty-eight; that of the suffragans indefinite, as may be truly added of the inferior ecclesiastics. They consist of two great divisions, the parochial clergy, and the monastic orders. The former are often the teachers of their respective parishes, but the latter, originally their assistants, have become, in the lapse of ages, more numerous than their principals, and may now be divided into those of settled income, and those who live on alms.

Italy contains an extraordinary number of hospitals, erected, and in general provided for, by the piety or superstition of former ages. 'It may perhaps be asked,' says the elegant writer we have quoted above, 'why, with the same talents and the same virtues, the Italians do not now make the same figure in the history of the world as their ancestors?' The answer appears to me obvious. To induce man to shake off his natural indolence, and exert all his energies, either urgent pressure or glorious rewards are necessary. Now the ancient Romans fought first for their safety and very existence, and afterwards, when imminent danger was removed from their city, they entered the lists of fame, and combated for the empire of the universe. In both cases, all their powers and all their virtues were called into action, either to save their country, or to crown it with immortal glory. The modern Italian has neither of these motives to arouse his natural magnanimity. His person, his property, his city even, is safe, whatever may be the issue of the contests of which his country is either the object or the theatre. Whether the French or Russians, the Germans or Spaniards, gain the victory, the Italian is doomed still to bear a foreign yoke. His inactivity and indif-

ference in the struggle are therefore excusable, because prudent. *Quid interest cui serviam, clitellas dum portem meas.* As for glory and empire, to them, Italy divided and subdivided as she is, and kept in a state of political palsy by the intrigues or the preponderating power of her transalpine enemies, to them Italy can have no pretension. But if some happy combination of events should deliver her from foreign influence, and unite her many states once more under one head, or at least in one common cause, and that the cause of independence and of liberty, then Europe might confidently expect to see the spirit and glory of Rome again revive, and the valor and perseverance which subdued the Gauls, and routed the Cimbri and Teutones, again displayed in chastising the insolence of the French, and in checking the incursions of the Germans. She would even rise higher, and assuming the character which her situation, her fertility, and her population naturally give her, of the empire of the south, she might unite with Great Britain, the rival and the enemy of France, in restoring and in supporting that equilibrium of power so essential to the freedom and to the happiness of Europe. But whether Italy be destined to re-assume her honors, and to enjoy once more an age of glory and of empire; or whether she has exhausted her portion of felicity, and is doomed to a state of hopeless bondage and dependence, it is not for man to discover. In the mean time, deprived of that sceptre of empire which Heaven once entrusted to her hands, to humble the pride of tyrants, and to protect oppressed nations, to portion out kingdoms and provinces, and to sway at pleasure the dominion of the universe, she has assumed the milder but more useful sovereignty of the intellectual world, and reigns the acknowledged queen of poetry and of music, of painting and of architecture, the parent of all the sciences that enlighten, and all the arts that embellish human life.'

ITALY, AUSTRIAN, a kingdom of Upper Italy, belonging to the house of Austria, and erected by an edict of the emperor, dated 7th of April, 1815, is situated between $44^{\circ} 54'$ and $46^{\circ} 40'$ N. lat., and $8^{\circ} 31'$ and $13^{\circ} 30'$ E. long. It is bounded on the north by Switzerland and Austria, on the east by Illyria, on the south-east by the Adriatic; on the south by the states of the church, Modena and Parma; and on the west by Piedmont. The line laid down by the congress of Vienna is, 1st. On the side of Piedmont, the Lago Maggiore, and the course of the Ticino; 2d. On the side of Parma, Placentia, and Guastalla, the course of the Po; 3d. On the side of Modena, the same boundary as on the 1st of January, 1792; 4th. On the side of the papal states, the course of the Po as far as the embouchure of the Goro; and 5th. On the side of Switzerland, the former frontier of Lombardy, along with the line which separates the valleys of the Valteline, Bormio, and Chiavenna, from the cantons of the Grisons, and Ticino. The name given to this region, in treaties and other public acts, is the Lombardo-Venetian kingdom, from its two great component parts, which are separated from each other by the river Mincio

that on the right of the river is called the government of Milan, and that on the left the government of Venice. The former has nine provinces or delegations, and the latter eight: each delegation is subdivided into districts, and each district into communes or parishes. The following is a tabular view of the extent and population of each :—

I.—GOVERNMENT OF MILAN.

Delegations.	Extent in Sq. Miles.	Population.
1. Milan . .	670	427,000
2. Como . .	1230	299,000
3. Pavia . .	320	117,000
4. Lodi . .	390	141,000
5. Cremona . .	680	205,000
6. Mantua . .	880	214,000
7. Brescia . .	1200	306,000
8. Bergamo . .	1700	292,000
9. Sondrio . .	1270	81,000
Entire extent and population	8340	2,082,000

II.—GOVERNMENT OF VENICE.

Delegations.	Extent in Sq. Miles.	Population.
1. Venice . .	620	314,000
2. Padua . .	860	270,000
3. Verona . .	1330	285,000
4. Vicenza . .	950	311,000
5. Treviso . .	1310	295,000
6. Udina . .	2880	269,000
7. Belluno . .	1460	125,000
8. Rovigo . .	540	63,000
Entire extent and population	9950	1,932,000
Milan . .	8340	2,082,000
Entire extent and population of Austrian Italy	18,290	4,014,000

The inhabitants are chiefly Italians, without any admixture, except of a few Greeks and Jews, and the German occupants of the mountains and northern district. Its climate, productions, &c., are fully detailed as those of Northern ITALY in the foregoing article. The Austrian viceroy resides at Milan.

ITAMACA, a narrow river of Guiana, South America, which rises in the mountains about 100 miles from the coast, and falls into the Orinoco, near its mouth. It has from sixteen to eighteen feet water in its channel.

ITAMARCA, a fertile province of Brasil, bounded on the north by the province of Paraiba, south by that of Parnambuco, east by the sea, and west by the country of the Tapuyos Indians. It is of a hot climate, and grows tobacco, cotton, Brasil wood, and sugar canes.

ITAMARCA, an island of Brasil, in Pernambuco, about three leagues in length, and two in breadth, situated eight leagues northward of Recif; and separated from the main land by a channel from half a mile to a league in breadth. It contains no stream; but water flows from a hill in the neighbourhood of the town whenever it is dug for. It contains some sugar-mills and salt-works, and the shores are planted with cocoa trees, among which are scattered the straw cottages of the fishermen. The salt works are formed upon the sands, which are overflowed by the tide.

ITAMARCA, having the title of Nuestra Senora de la Concepcion, is the capital of the above island, and situated on the south-east side. It once contained 200 houses; but has now a neglected and decayed appearance. There is a square and a street branching from it formed of small huts, closed at the end by a church. The harbour is good, and commanded by an old fort. Long. 35° 6' W., lat. 8° 0' S.

ITATA, a fertile province of Chili, bounded on the north by Maule, by Chillan on the east, the Pacific Ocean on the west, and Puchacay on the south. It is about twenty leagues in length from east to west, and eleven from north to south. It produces the best wine in Chili, called Con-

ception, from its being made in the vicinity of that city. Gold is found in the mountains, and in the sands of the rivers. The chief town is Coulemu, situated in lat. 36° 2' S.

ITATA, a river of the above province, which rises in the Chilian Andes, and runs north-east of the city of Concepcion. It is generally crossed on rafts, and enters the sea in lat. 36° S.

ITCH, *u. s. & v. n.* } Sax. *ȝieþa*. A cuta-

neous disease, extremely contagious, which overspreads the body with small pustules filled with a thin serum, and raised, as microscopes have discovered, by a small animal. It is cured by sulphur. A sensation of tickling uneasiness in the skin: figuratively, a teasing desire; a constant restless curiosity: itch, to feel uneasiness from tickling irritation; to desire, or long, for any thing: itchy, infected with the itch.

The Lord will smite thee with the scab and with the itch, whereof thou canst not be healed.

Deut. xxviii. 27.

In grete mischefe than shal thou be,

For than againe shal come to thee

Sighes and plaintes, with newe wo,

That no itching pricketh the so.

Chaucer. Romaunt of the Rose.

Master Shallow, you have yourself been a great fighter, though now a man of peace.—Mr. Page, though now I be old, and of the peace, if I see a sword out, my finger itches to make one.

Shakspeare.

Cassius, you yourself,

Are much condemned to have an *itching* palm,
To sell and mart your offices for gold. *Id.*

Lust and liberty

Creep in the minds and marrows of our youths,
That 'gainst the stream of virtue they may strive,
And drown themselves in riot, itches, blains. *Id.*
Ah, powerful weapon! how dost thou bewitch,
Great, but base minds, and spottest with leprous
itch,

That never are in thought, nor ever can be rich.

Fletcher. Purple Island.

The *itching* ears, being an epidemick disease,
gave fair opportunity to every mountebank.

Decay of Piety.

As if divinity had catched

The *itch* on purpose to be scratched.

Hudibras

My right eye *itches*; some good luck is near;
Perhaps my Amaryllis may appear. *Dryden.*

He had still pedigree in his head, and an *itch* of
being thought a divine king. *Id.*

A certain *itch* of meddling with other people's
matters, puts us upon shifting. *L'Estrange.*

From servants' company a child is to be kept, not
by prohibitions, for that will but give him an *itch*
after it, but by other ways. *Locke.*

A troublesome *itching* of the part was occasioned
by want of transpiration. *Wiseman's Surgery.*

When universal homage Umbra pays,

All see 'tis vice, and *itch* of vulgar praise.

Pope.

All such have still an *itching* to deride,

And fain would be upon the laughing side. *Id.*

ITEA, in botany, a genus of the monogynia
order and pentandria class of plants. The petals
are long, and inserted into the calyx: caps. unilocular
and bivalved. There is but one species,
a native of North America. It grows by the sides
of rivers, and in other parts where the ground is

moist. It rises to the height of eight or ten feet, sending out many branches garnished with spear-shaped leaves placed alternately, of a light green color. At the extremity of the branches are produced fine spikes of white flowers, three or four inches long, standing erect. When these shrubs are in vigor, they will be entirely covered with flowers, so that they make a beautiful appearance during the flowering season, which is in July. They are propagated by layers, and are not injured by the cold of this climate; but are apt to die in summer, if planted on a dry gravelly soil. The shoots should be laid down in autumn, and will be rooted in one year.

ITEM, *adv.* & *n. s.* Lat. Also; a word used when any article is added to the former; a new article; a hint or innuendo.

I could have looked on him without the help of admiration, though the catalogue of his endowments had been tabled by his side, and I to peruse him by items. *Shakspeare.*

If this discourse have not concluded our weakness, I have one item more of mine: if knowledge can be found, I must lose that which I thought I had, that there is none. *Glanville.*

ITERATE, *v. a.*

IT'ERANT, *adj.*

ITERA'TION, *n. s.*

ITIN'ERANT, *adj.*

ITIN'ERARY, *n. s. & adj.* Iteration; frequent mention; to do over again: iteration, repetition: itinerary, wandering; unsettled: itinerary, a book of travels: travelling; done on a journey.

To unreste bothe reste and remedie;

Fruitfull to all tho that in hire affie.

To hem that rennen thou are *itinerarie*. *Chancery.*

We covet to make the psalms especially familiar unto all: this is the very cause why we iterate the psalms oftener than any other part of Scripture besides; the cause wherefore we inure the people together with their minister, and not the minister alone to read them, as other parts of Scripture he doth. *Hooker.*

Truth tir'd with iteration

As true as steel, as plantage to the moon. *Shakspeare.*

There be two kinds of reflections of sounds; the one at distance, which is the echo, wherein the original is heard distinctly, and the reflection also distinctly: the other in concurrence, when the sound returneth immediately upon the original, and so iterateth it not, but amplifieth it. *Bacon.*

Iterations are commonly loss of time, but there is no such gain of time, as to iterate often the state of the question; for it chaseth away many a frivolous speech. *Bacon's Essays.*

Waters being near, make a current echo; but being farther off, they make an iterant echo. *Bacon's Natural History.*

He did make a progress from Lincoln to the northern parts, though it was rather an *itinerary* circuit of justice than a progress. *Id. Henry VII.*

In all these respects it hath a peculiar property to engage the receiver to persevere in all piety, and is further improved by the frequent iteration and repetition. *Hannmond.*

Ashes burnt, and well reverberated by fire, after the salt thereof hath been drawn out by iterated decoction. *Browne.*

Adam took no thought,
Eating his fill; nor Eve to iterate
Her former trespass feared, the more to sooth
Him with her loved society. *Milton's Paradise Lost.*

It should be my care to sweeten and mellow the voices of *itinerant* tradesmen, as also to accommodate their cries to their respective wares.

Addison's Spectator.

The clergy are sufficiently reproached, in most *itineraries*, for the universal poverty one meets with in this plentiful kingdom. *Addison on Italy.*

Which [law] denies to an *itinerant* hawker of grievances the power of stamping their names upon his wares. *Canning's Speeches.*

ITHACA, in ancient geography, an island in the Ionian Sea, on the coast of Epirus; the country and the kingdom of Ulysses, near Dulichium, with a town and port situated at the foot of mount Neius. Pliny speaks of it as about twenty five miles in compass; Artemidorus makes it only ten. It consists merely of a narrow ridge of limestone, seventeen miles long, and four in extreme breadth, rising into rugged eminences, with scarcely a hundred yards of continuous level surface. Near the middle it is intersected by a deep bay, which penetrates nearly across it. Upon this bay the town of Vathi, the capital, is situated, containing 2000 inhabitants. The chief produce of the island is currants; but it yields also a small quantity of oil and excellent wine. Grain is raised for about one-fourth of the consumption. On a hill near Vathi are some massive ruins of walls, with a number of sepulchres, which are supposed to mark the site of the capital of Ulysses. Near the south-east end of the island is the cliff still called Koraka, and supposed to be the rock Korax of the Odyssey. Under it, in a secluded spot, is a fountain, conceived to be that of Arethusa. The island is called Ithaca by the more intelligent natives, which is corrupted into Theaki by the lower classes. Between Ithaca, Santa Maura, and the continent, are situated Meganisi, Calaeno, Atako, and Carto, four small rocky isles, besides several minute islets. Its population may be taken, according to Mr. Williams, at 9400.

ITHOMAIA, a festival held at Ithome, in honor of Jupiter, hence called Ithomae, in which musicians contended.

ITHOME, a town of Messenia, which stood a ten years' siege by the Spartans, but at last surrendered, A.A.C. 724.

An ITINERARY, *itinerarium*, a journal, or an account of the distance of places. The most remarkable is that which goes under the names of Antoninus and Ethious, or, as Baithius found in his copy, Antoninus Ethicus; a Christian writer, posterior to the times of Constantine Another, called Hierosolymitanum, from Bourdeaux to Jerusalem, and from Hieraclea through Aulona and Rome to Milan, under Constantine. The itinerary of Antonine shows all the grand Roman roads in the empire, and all the stations of the Roman army. It was drawn up by order of the emperor Antoninus Pius; but is now very defective, having suffered much under the hands of the copyists and editors. Itinerarium denotes a day's march.

ITIQUIRA, an interior river of Brasil, which falls into the Porruelos, an arm of the La Plata, and has a course of 500 miles, in nearly all of which it is navigable.

ITIUS PORTUS, in ancient geography, styled the crux geographorum, or cross of geographers,

from the difficulty of ascertaining its position. It would be endless to recite the different opinions concerning it, with the various reasons advanced in support of them. Three ports are mentioned by Caesar; two without any particular name, viz. the Higher and the Lower, with respect to the Portus Itius. Calais, Boulogne, St. Omer, and Whitsand, have each in their turn had their advocates. Caesar gives two distinctive characters or marks which seem to agree equally to Boulogne and Whitsand; namely the shortness of the passage, and the situation between two other ports; therefore nothing can with certainty be determined about its situation.

ITSELF, *pron.* It and self. The neutral reciprocal pronoun, applied to things.

Who then shall blame

His pestered senses, to recoil and start,

When all that is within him does condemn

Itself for being there? *Shakspeare. Macbeth.*

Up to the bridge contagious terror struck
The tower *itself* with the near danger shook.

Marrell.

Borrowing of foreigners, in *itself* makes not the
kingdom rich or poor. *Locke.*

ITTIGIUS (Thomas), a learned professor of divinity at Leipsic, son of John Ittigius, professor of physic in the same university. He first published A Treatise upon Burning Mountains; after which he became a minister, and exercised that function in various churches there. He furnished several papers in the Leipsic acts, besides publishing some historical works and dissertations. He died in 1710.

ITURBIDE (—), a modern Mexican chief and emperor, was born at Valladolid in Mexico, in 1790, and was the son of a native Spaniard, who married a Creole lady of fortune. Our hero was bred a farmer, and entered early into the militia of his native province. In 1810 he was a lieutenant, and the part he took in suppressing the insurrection of Morales induced the Mexican government to give him the rank of colonel. He was also made for a time commander of Bahia; but seems to have been offended with the public authorities at being deprived of that post. In the latter part of 1819 he was invited to take the command of an army destined to the south, and marched to Acapulco, where he matured a plan for rendering Mexico independent, and the extension of freedom to all classes of the people. In the summer of 1820 he was declared emperor of Mexico; and for a short period there appeared a prospect that the convulsions of that country would be terminated under this new and able sovereign. But he was incapable of maintaining his authority against cabal: in the beginning of 1823 he found himself obliged to leave the Mexican territory; and came to this country. Still he retained a strong party in Mexico; and, after his abdication, the province of Guadalaxara or Jalisco became the scene of several of their plots and machinations. An expedition was accordingly despatched thither by the federal government to crush the incipient conspiracy. Just at the period this had been effected, Iturbide sailed from England, and landed in disguise on the Mexican coast near Soto la Marina. He was accompanied by his friend Beneski,

who applied to general Garza, the commander of the province of New Santander, for passports, which that officer granted to the applicant, but refused to grant another till he should see the person for whom it was wanted. The next day, being informed that Beneski had again landed with two other persons, he sent a party after them, and Iturbide was immediately recognized. The decree issued by the congress, declaring him a traitor if he should land on the Mexican territory, was then read to him; and Garza sent him as a prisoner towards Mexico, to await the decision of that body. This was but a short time delayed, for the congress ordered his immediate execution; and he was accordingly shot on the evening of his reaching Padillo. On his abdication the federal government had settled on him a considerable pension, on condition of his residing in Italy, and after his catastrophe 8000 dollars were granted to his widow.

ITYS, in fabulous history, a son of Tereus king of Thrace, by Procne daughter of Pandion king of Athens. He was killed by his mother when he was about six years old, and served up before his father. He was changed into a pheasant, his mother into a swallow, and his father into an owl.

ITZEHOA, an ancient and handsome town of Germany, in the duchy of Holstein, belonging to Denmark, seated on the Stoer. Long. 9° 25' E., lat. 54° 8' N.

IVA, in botany, a genus of the pentandria order, and monœcia class of plants; natural order forty-ninth, composite. Male *cal.* common and triphyllous; the florets of the disc monopetalous and quinquefid; the receptacle divided by small hairs. Female five florets in the radius; two long styles; and one naked and obtuse seed. Species two, natives of South America.

JUAN (St.), a city of South America, in the province of Cuyo, Buenos Ayres. It has a parish church, with three chapels; also several convents.

JUAN GUYA, PUNTA DR, a cape on the coast of Terra Firme, in long. 73° 36' W., lat. 11° 36' N.

JUAN (St.), DE BAPTISTA, a town of Mexico, in the province of Sonora, situated between the sources of the two rivers Hiaqui and Sonora.

JUAN (St.), a river of Guatemala, South America, navigable for large vessels, and having a fort at its entrance. This is the name of several rivers in South America, and two in St. Domingo. Also of a considerable river of Florida; and a lake of South America, in the kingdom of Grenada.

JUAN FERNANDEZ. See FERNANDEZ.

JUAN RODRIGUEZ CABRILLO, an island on the coast of New California, in long. 120° 31' W., lat. 34° N.

JUAN DEL RIO, SAN, a town in the intendancy of Mexico, 6489 feet above the level of the sea: it is surrounded with gardens, adorned with vines and aroma. It is 100 miles south of Mexico.

JUAN DEL RIO, SAN, a considerable town of Mexico, in the intendancy of Durango, southwest of the lake of Parras. Inhabitants 10,200.

JUANA (St.), an island and fortress of Chile, in the river Biobio.

JUAN DE ULUA, i. e. The Island of Sacrifices, an island in the bay of Vera Cruz, on the coast of Mexico. It was first visited by Grijalva in 1518, who gave it this name from having seen the remains of some human sacrifices, which the natives told him they were in the habit of offering. The interpreters, who only spoke the language of Yucatan, believed that Acolhua or Ulua was the name of the island. A strong fortress, called the castle of St. Juan d'Ulua, now covers nearly the whole rock, in the form of an irregular square. The expense of finishing it is said to have been upwards of £8,000,000 British sterling. It contains barracks, cisterns, and a newly erected light-house.

JUBA I, a king of Numidia and Mauritania. He succeeded his father Hiempsal, and favored the cause of Pompey against Julius Caesar. He defeated Curio, whom Caesar had sent to Africa, and after the battle of Pharsalia he joined his forces to those of Scipio. He was conquered in a battle at Thapsus, and totally abandoned by his subjects. He killed himself with Petreus, who had shared his good fortune and his adversity, A.U.C. 707. His kingdom became a Roman province, of which Sallust was the first governor.

JUBA II, the son of the former, was led captive to Rome to adorn the triumph of Caesar. His captivity was the source of the greatest honors, and his application to study procured him more glory than he would have obtained from the inheritance of a kingdom. He gained the affections of the Romans by the courtesyness of his manners; and Augustus rewarded his fidelity by giving him in marriage Cleopatra the daughter of Antony, conferring upon him the title of king, and making him master of all the territories which his father once possessed, A.U.C. 723. His popularity was so great, that the Mauritanians deified him; the Athenians raised him a statue; and the Ethiopians worshipped him. Juba wrote a History of Rome in Greek, which is often quoted and commended by the ancients. Of it only a few fragments remain. He also wrote on the History of Arabia, and the Antiquities of Assyria, chiefly collected from Berossus. He also composed some treatises upon the drama, Roman antiquities, the nature of animals, painting, grammar, &c., now lost.

JUBILANT, adj. Fr. *jubilé*; Lat. *jubilo*.
JUBILATION, n. s. Uttering songs of tri-

JUBILEE, n. s. Triumph: jubilation, the act

JUBILATE, n. s. of declaring triumph: jubilee, a public festivity; a season of peculiar joy: jubilate, a song of triumph.

They may now God be thanked of his lone,
Maken hir jubilee and walk alone.

Chaucer. *The Somnoures Tale.*

'Nowe jubilate sang! what meneth this?'
Said than the lyuet—' Welcome lord of blisse.

Id. The Court of Love.

Angels utt'ring joy, heaven rung
With *jubilee*, and loud hosannas filled
The eternal regions. *Milton's Paradise Lost.*

The planets list'ning stood,
While the bright pomp ascended *ja'lant*.

Milton.

The town was all a *jubilee* of feasts. Dryden.
Joy was then a masculine and a severe thing, the
recreation of the judgment, or rejoicing the *jubilee*
of reason. South.

All monarchs in their mansions
Now swarm forth in rebellion, and demand
His death, who made their lives a *jubilee*.

Byron. *Sardonapalus.*

JUBILEE, among the Jews, denotes every fiftieth year; being that following the revolution of seven weeks of years; at which time all the slaves were made free, and all lands reverted to their ancient owners. The jubilees were not observed after the Babylonish captivity. The learned are divided about the year of jubilee; some maintaining that it was every forty-ninth, and others that it was every fiftieth year. The ground of the former opinion is chiefly this, that the forty-ninth year, being of course a sabbatical year, if the jubilee had been kept on the fiftieth, the land must have had two sabbaths, or have lain fallow two years, which, without a miracle, would have produced a dearth. On the other hand it is alleged, that the scripture expressly declares for the fiftieth year, Lev. xxv. 10, 11. And besides, if the jubilee and sabbatical year had been the same, there would have been no need of a prohibition to sow, reap, &c., because this kind of labor was prohibited by the law of the sabbatical year. Lev. xxv. 4, 5. The authors of the Universal History, book i. chap. 7, note R, endeavour to reconcile these opinions, by observing, that as the jubilee began in the first month of the civil year, which was the seventh of the ecclesiastical, it might be said to be either the forty-ninth or fiftieth, according as one or other of these computations was followed. Learned critics have made a calculation thought by others to be tolerably exact, that if the Jews had still observed the jubilees, the fiftieth year of Tiberius, when John the Baptist first began to preach 'the acceptable year of the Lord' would have been a jubilee, and consequently the last; since, fifty years after, the Jewish commonwealth was no longer in being. This agrees with the tradition of the Jews, who assert, that the son of David will come during the last jubilee. The political design of the law of the jubilee was to prevent the too great oppressions of the poor, as well as their being liable to perpetual slavery. A kind of equality was thus preserved through all the families of Israel, and the distinction of tribes was also preserved, that they might be able, when there was occasion, on the jubilee year, to prove their right to the inheritance of their ancestors. It served also, like the Olympiads of the Greeks, and the Lustra of the Romans, for the readier computation of time. The jubilee has also been supposed to be typical of the gospel state and dispensation, described by Isaiah lxi. 1, 2, in reference to this period, as 'the acceptable year of the Lord.'

JUBILEE, in a modern sense, denotes a grand church festivity, celebrated at Rome, wherein the pope grants a plenary indulgence to all sinners; at least to as many as visit the churches of St. Peter and St. Paul at Rome. The jubilee was first established by Boniface VII. in 1300, in favor of those who should go ad limina aposto-

lorum; and it was only to return every 100 years. But the first celebration brought in such store of wealth to Rome, that the Germans called this the golden year, which occasioned Clement VI., in 1343, to reduce the period of the jubilee to fifty years. Urban VI., in 1389, appointed it to be held every thirty-five years, that being the age of our Saviour; and Paul II. and Sextus IV., in 1475, brought it down to every twenty-five, that every person might have the benefit of it once in his life. Boniface IX. granted the privilege of holding jubilees to several princes and monasteries: for instance, to the monks of Canterbury, who had a jubilee every fifty years; when people flocked from all parts to visit the tomb of St. Thomas à Becket. There is now usually one at the inauguration of a new pope. To be entitled to the privileges of the jubilee, the bull enjoins fastings, alms, and prayers. It gives the priests a full power to absolve in all cases, even those otherwise reserved to the pope: to make commutations of vows, &c., in which it differs from a plenary indulgence. During the time of jubilee, all other indulgences are suspended. There are particular jubilees in certain cities, when several of their feasts fall on the same day: at Puy en Velay, for instance, when the feast of the Annunciation happens on Good Friday; and at Lyons when the feast of St. John Baptist concurs with the feast of Corpus Christi. In 1640 the Jesuits celebrated a solemn jubilee at Rome; that being the centenary or 100th year from their institution, and the same ceremony was observed in all their establishments throughout the world.

JUBILEE is also used for any solemnity or festival, appointed or repeated at a distant period. Thus Edward III. caused his birth-day to be observed in manner of a jubilee, in the fiftieth year of his reign. This he did, by releasing prisoners, pardoning all offences except treason, making good laws, and granting many privileges to the people. A jubilee was also celebrated throughout Great Britain and Ireland, on the 25th of October 1809; the late King George III. entering on the fiftieth year of his reign. A grand jubilee was held at Stratford-upon-Avon, on the 23rd of April 1764, in honor of Shakspeare, being the second centenary of the birth-day of that unparalleled dramatic poet; whose unrivalled merits will induce posterity to repeat it, as long as the drama is admired, or the English language understood. The celebrated Garrick was the principal planner and conductor of the entertainment, and wrote most of the songs for the occasion.

JUCUNDITY, n. s. Lat. *jucunditas, jucundus*. Pleasantness; agreeableness.

The new or unexpected *jucundities*, which present themselves, will have activity enough to excite the earthiest soul, and raise a smile from the most composed tempers. *Broune.*

JUDÆA, in ancient geography, taken largely, either denotes all Palestine, or the greater part of it; and thus it is generally taken in the Roman history: Ptolemy, Rutilinus, Jerome, Origen, and Eusebius, take it for the whole of Palestine. It has also been considered as the third part of it, on this side the Jordan; and that the south

part is distinct from Samaria and Galilee; in which sense it is often taken, not only in Josephus, but also in the New Testament. Thus regarded it contained four tribes; Judah, Benjamin, Dan, and Simeon, together with Philistia and Idumea; so as to be comprised between Samaria on the north and Arabia Petraea on the south, and bounded by the Mediterranean on the west, and by the lake Asphaltites, with part of the Jordan, on the east. Josephus divides it into eleven toparchies; Pliny into ten; by which it has a somewhat greater extent than that just mentioned. See PALESTINE.

While we thus refer for modern geographical particulars of this land to its more general appellation, our biblical readers will recollect the origin of the name Judea, as connecting it with the royal tribe of the house of Israel, i. e. Judah, and as calculated from that circumstance to point the Jews and all mankind to the fulfilment of those prophecies which regarded the appearance of the Messiah in that tribe. The only two tribes whose distinct genealogy was connected with the 'service of God and the promises' were Levi and Judah: these, therefore, we find preserved more distinctly throughout and after the captivity in Babylon than any other; and, while the former yielded some of the most distinguished ornaments of the sacerdotal race, the very name of Judah was transferred, after this event, to the land and to the people in the cognomina *Judea* and *Jews*.

Since the appearance of the true Messiah in this land, although a large portion of the Jewish nation has been preserved unmixed with the other nations of the earth, the distinction of the tribes is lost. Judah is not known from Ephraim: Levi cannot be distinguished from Simeon or Dan.

Palestine is therefore no longer Judea, i. e. the land emphatically of Judah: it is no longer the peculiar inheritance of the Jews. Hence it is remarkable that none of the passages in the New Testament, which advert to the future conversion of that people to the Christian faith, ever mention their return to that land. 'They are beloved for the fathers' sakes'—'they shall obtain mercy,' we are told: the 'receiving of them again' into God's church shall 'be as life from the dead.' But nothing is suggested as to their locality. It is not mentioned as a part of their 'mercy' or deliverance that they shall return again to Judæa.

It is the absence of any thing like even an allusion to such a circumstance in the New Testament, that has led many modern critics wholly to doubt that construction of certain prophecies of the ancient Scriptures which have been thought still to hold out such an expectation. As the subject has been brought into considerable discussion of late, and much of the entire system of modern writers on prophecy rests on this view of it, we are disposed to record briefly the arguments on each side of the question.

It strictly consists of two parts, suggesting these two enquiries: 1. Will the Jews ever be re-gathered *as a nation*? And, 2, Will they as such ever *re-possess Palestine*? Neither of these questions should be confounded with the expectation of their future general conversion, which various

Christians entertain cordially, who are disposed to consider the foregoing as at least very doubtful matters.

In proof of the affirmative of both the two questions, thus suggested, Dr. Doddridge, in his Lectures as edited by Kippis, quotes Isa. xxvii. 12, 13; Ezek. xi. 17—21; xxxvi. 24—28; xxxvii. 21—28; xxxix. 25—29; Hosea i. 10, 11; Amos ix. 14, 15; Zech. xiv. 10, 11, 21. He adds other passages in collateral proof of these points, i. e. Isa. lxvi. 16, 24; Ezek. xxxviii. 19; Joel iii. 9—14; Zech. xiv. 1—15; Rev. xx. 8—10; Isa. lix. 19; Micah iv. 11, 13; Zeph. iii. 8. At least, these last passages are brought forward to prove, that ‘on their settlement in their own land some enemies shall make an assault upon them [the Jews], and some celebrated victory over such enemies is foretold.’

The next respectable commentator whom we shall quote on this side of the question is Whithy. He adduces, in his Commentary on Isaiah xi. 11, the following passages, to prove ‘the restoration of the Jewish nation, when they shall embrace the Gospel, and be restored to their own country.’ Deut. xxx. 3—5; xxxii. 43; Isa. xxvii. 12, 13; xlvi. 17, &c.; xlxi. 6, &c.; liv. lix. 20; lx., lxi., lxii., lxv., lxvi.; Jer. xxii. 8; xxx. 8—10; xxxi. 36—40; l. 4; Ezek. xi. 17, &c.; xx. 34, &c.; xxxiv. 13; xxxvi. 24, &c.; xxxvii. 21; Hosea i. 11; iii. 5; Joel iii. 1, &c.; Amos ix. 14, 15; Obad. v. 17; Micah vii. 14, 15; Zech. viii. 7, 13; x. 6, &c.; xii. 10; xiv. 8, &c.; Rom. xi. 25, 26; 2 Cor. iii. 10.

Certainly if a tenth part of these passages spoke unequivocally of such events as the national regathering of the Jews, and their literal return to Palestine, we should be bound to admit the propriety of expecting them. We do not advert to other writers on this subject, because all the chief passages ever quoted are contained in the foregoing lists, or are of a similar class with those quoted.

Those who consider these events as not predicted in Scripture remark, as we have intimated, on the paucity of the attempted proof of them from the New Testament. The only passages quoted by the above able commentators are Rev. xx. 8; Rom. xi. 25, 26; and 2 Cor. iii. 10; in not one of which are either of those two subjects distinctly mentioned at all. The quotation from St. Paul’s epistle to the Romans we have already adverted to, in this paper, as predicting the future conversion of the Jews simply. The chapter contains no allusion to their national character, or to their land. They are represented as being broken off from their ancient privileges as a church, into which the Gentiles are grafted (the latter clearly were never grafted into the Jewish nation), and are promised a restoration to similar or superior privileges on their believing the Gospel. But not a hint is given of their acquiring any temporal or local advantages in consequence: no other advantages are promised them, and they can receive no greater, than those into which the Gentiles are grafted. 2 Cor. iii. 10 speaks of the glory of the Gospel as superior to that of the law: the Jew, of course, shall partake it, on his conversion, but after an evangelical or Gospel manner: not returning back to that dispensation,

or its peculiarities, ‘which’ in this very place is said to have ‘had no glory, by reason of the glory that excelleth.’ Rev. xx. 8 predicts a conflict, transpiring a thousand years after a ‘first resurrection,’ and the assembling of an army gathered together from ‘the four quarters of the earth’: all its nations seem to constitute the bands described under their leaders Gog and Magog; they are said in the ninth verse to ‘encompass the camp of the saints and the beloved city;’ but the nation of the Jews is named in no part of the connexion, nor Judæa, nor Jerusalem. If a literal resurrection be not intended then the whole chapter is an allegory, and a literal camp and city cannot be intended: if a literal resurrection of God’s people be, as some suppose, really meant, then neither the camp nor the city, can intend Jews exclusively, or his people of any one nation. Such are the remarks of those who oppose the opinion of a literal return of the Jews, on the few passages of the New Testament above quoted on the point.

Our space will not permit a similar examination of the passages quoted from the Old Testament. Before the reader can justly estimate their bearing, if they have any, on these points, they require to be arranged in the order of time in which they were written: ‘the former’ must be separated from ‘the latter’ prophets. This is most important; for it will appear that, out of forty-nine passages thus accumulated, thirty-nine are the production of prophets living before or in the captivity in Babylon; and the term ‘captivity,’ and the promises of restoration as far as they are literal, may apply wholly therefore to that calamity, and the return from it. Prophecies of a literal return, from a later captivity, may be expected to occur after the return from the former; or, if two captivities were contemplated by earlier writers, such an important fact should be made to appear.

The passages quoted from the later prophets, i. e. from those who delivered their predictions subsequent to the return from Babylon, are at best, as supposed to bear on these topics, remarkably obscure. They are wholly taken from one prophet, Zechariah, his eighth, his tenth, his twelfth, and fourteenth chapters. A popular advocate of the national restoration has pronounced the first of these the strongest of all the passages in its favor. But it will be seen to allude, at least principally, to events passing in the time of the prophet. We are to recollect the specific object of his mission, in common with that of Haggai, was to encourage the building of the second temple, and toward this great work the whole chapter bears an aspect. Its language is, ‘I am returned unto Zior!’ ‘Let your hands be strong that hear in these days these words. Again have I thought in these days to do well unto Jerusalem.’ It promises a more complete return from the east and west; but it expressly declares that the existing ‘remnant shall possess all these things.’ And it is a well known fact that parties of the Jews kept returning to Jerusalem as she gradually lifted up her head; and that the small number of between 40,000 and 50,000, which first returned, was increased many fold in the time of the Asmonean princes. At

the period of their dispersion by the Romans, the Jews were probably as numerous as at present.

Writers who reject the national restoration can find nothing in this eighth chapter of Zechariah, with regard to the prosperity of the Jews, that may not be included in the ‘encouragement’ which this prophet was sent to afford his own generation, and that was not fulfilled before the advent of the Messiah. The twentieth to the twenty-third verse probably relates to the conversion of the Gentiles by the means of the Jewish apostles: nor must we forget that our Saviour was ‘a Jew.’ At any rate these verses respect ‘many people’ and other ‘nations.’ Similar remarks are made by these writers on the tenth chapter. Dr. Whitby himself considers the ‘riders on horses,’ and the ‘mighty men who tread down their enemies,’ of the fifth verse, to allude to the victorious efforts of the Maccabees. Never had the Jews braver commanders, nor more decided Divine interpositions in their favor, than in their time. The pride of Assyria and Egypt being brought down (11th verse) seems the consummation of the national deliverances promised. Zechariah xii. 10 predicts, we know, upon unquestionable authority (John xix. 37), the peculiar manner of the death of Jesus Christ: it is perfectly clear that there was a great mourning in Jerusalem, when the first Christian church was gathered in that memorable scene of the Messiah’s murder, and from amongst the ranks of his immediate murderers. The verse was then literally fulfilled in a sense it never can again be; and in that individual repentance of thousands of converted Jews (among whom a great company of the ‘priests’ are specified, Acts vi. 7), the families of Levi, David, &c., could be distinguished ‘apart, and their wives apart.’ But the former is, as was seen, no longer possible; and never can again be but by a miraculous restoration of the genealogies of the tribes. Zech. xiv. 8 must be as clearly a *symbolical*, and not a literal prediction: the living or springing waters are not a literal river; ‘the whole land being turned into a plain’ (ver. 10) would be a literal curse in that country. Every plain in such countries is, as Humboldt somewhere remarks, desert. It is the well known symbol of Ezek. xlvi. 1, Rev. xxii. 1, and of our Lord himself (John vii. 38), for the spiritual blessings of the gospel; and speaks of their diffusion from a spiritual Jerusalem.

Bonus textuarius est bonus theologus. The writers who quote so largely the ‘former’ prophets on this subject cannot have closely examined the context of the passages commonly accumulated, and the infallible explanation of many of them in the New Testament. Amos is the earliest prophet they quote; and particularly his 11th chap. 11–15. But the ‘raising up of the tabernacle of David,’ here promised, is expressly applied (Acts xv. 16) to the establishment of the gospel in the hands of the Messiah; upon a principle of its ‘agreeing’ with the words of other ‘prophets;’ and thus the symbols of the 13th and 14th verses ‘agree’ with Joel iii. 18, and Isa. lxi. 4:—the verses immediately preceding this last passage being quoted and applied to his own preaching by our Lord. Hosea i. 10, 11;

Isa. xi. 10; liv. 13; lix. 20; lxi. 1–3; lxv. 1, 2, lxvi. 24; are also directly quoted and explained in the New Testament, as the margin of any Bible with references will show. The connexion of Joel iii. 1 is largely explained in St. Peter’s quotation of the last verse of the preceding chapter, Acts ii. Jer. xxxi. 31–34 is likewise quoted (Heb. viii. 6–11) as a ‘promise’ upon which the entire Christian dispensation is established. Such numerous quotations out of the above lists of passages, say the parties whose opinions we are now exhibiting, may establish a principle of explanation for the whole: many of them are quoted, not by way of accommodation, but in strict argument, and by way of *proof* that the events to which they are applied were of old predicted. If the quotation be not correct the proof will fail; if it be, we have at least one good and sound exposition of the passages quoted in the final dispensation of God’s will.

In brief, these parties say, 1. Extract from these lists passages explained in the New Testament, and you have very few, except exactly similar ones, left upon the subject. 2. Examine closely the connexion of the remaining passages (of the prophets), and the greater part of them refer, in express terms, to *calamities existing, or threatened to come immediately.* They are passages, for instance, from Isaiah, Joel, Jeremiah, and Ezekiel (almost entirely), who lived just before or in the Assyrian and Babylonian captivities. Many of them describe by name, tense, and mood, those captivities; and cannot, without an utter disregard of grammatical construction, be applied to any other: for instance, Isa. xxvii. 12, 13, ‘Assyria and Egypt.’ Jer. xxx., following xxix. 10 (‘After seventy years be accomplished at Babylon I will visit you’), says, ‘Write all I have spoken in a book, for I will bring again the captivity,’ &c., the passage quoted by Whitby. So again Ezek. xxxvii. 21, much depended on by some writers, is closely connected with the preceding vision of the dry bones—which are explained to be the whole house of Israel who were in their graves, and who expressly complain of an existing calamity under that figure (ver. 11); i. e. the grave of their captivity in Chaldea, where Ezekiel prophesied. But we cannot go into further details. 3. With regard to the quotations from the Pentateuch, and particularly Deut. xxx. 3–5, these parties contend that numerous passages of this kind are to be found entirely conditional on the obedience of the Jews while they were a nation: that when God found them an unworthy and a rebellious people, his faithfulness was concerned to fulfil on the other hand his threatening of taking his church or kingdom from them; that such passages must be construed under the new circumstances and entire change of dispensation in which we are placed by the gospel, &c. 4. They add, that while, in their view, it has been an inoperative mistake in the creed of many good men, to suppose that any future literal distinction is in reserve for the Jews,—if it be in reality a mistake, and at the same time be exhibited as an important part of God’s revealed will that this extraordinary people shall be brought to great temporal honor, it may have the unhappy ten-

dency of inflating their pride—delaying their conversion—and calling off the attention of all who advocate it from matters of infinitely greater moment.

JUDAH, Heb. יְהוּדָה, i. e. Praise, or Confession, the fourth son of Jacob, and father of the chief tribe of the Jews, distinguished by his name. Died 1636 B. C.

JUDAH is also used for the people of Judah, including not only the whole people of that tribe, but those of the tribe of Benjamin, the majority of the Levites, and many individuals from all the other tribes, who adhered to the house of David, to avoid the idolatrous worship established by Jeroboam I. Many other individuals from the dispersed tribes are also supposed to have joined them after the Babylonish captivity, when they were called Jews. See JEWS.

CHRONOLOGICAL SERIES OF THE KINGS OF JUDAH.

A. M.

- 3029. Rehoboam succeeded his father Solomon, and reigned seventeen years, to 3046.
- 3046. Abijam, three years, to 3049.
- 3049. Asa, forty-one years, to 3090.
- 3090. Jehoshaphat, twenty-five years, to 3115.
- 3115. Jehoram, four years along with his father, and four alone, to 3119.
- 3119. Ahaziah, one year.
- 3120. Athaliah, his mother, usurped the crown, murdered the royal family, and reigned six years, to 3126.
- 3126. Joash was raised to the throne by Jehoiada; and reigned forty years, to 3165.
- 3165. Amaziah, twenty-nine years, to 3194.
- 3194. Uzziah, or Azariah, reigned twenty-seven years, to 3221; when, attempting to offer incense in the temple, he was struck with a leprosy, and obliged to quit the government. He lived after this twenty-five years, and died in 3246.
- 3221. Jotham, his son, took upon him the government, and reigned twenty-five years during his father's life, and sixteen alone. He died in 3262.
- 3262. Ahaz reigned sixteen years, to 3278.
- 3278. Hezekiah, twenty-nine years, to 3307.
- 3307. Manasseh, fifty-five years, to 3362.
- 3362. Amon, two years, to 3364.
- 3364. Josiah, thirty-one years, to 3395.
- 3395. Jehoahaz, three months.
- 3395. Eliakim, or Jehoiakim, eleven years, to 3406.
- 3406. Jehoiachin, or Jeconiah, three months and ten days.
- 3406. Mattaniah, or Zedekiah, reigned eleven years, to 3417; when Jerusalem was taken, the temple burnt, and the people carried captives to Babylon.

CHRONOLOGICAL SERIES OF THE PRINCES OF JUDAH, AFTER THE CAPTIVITY.

The following list is given by Alstedius in his Thesaurus Chronologicæ.

- 3421. Zorobabel governed thirty-two years after the captivity.
- 3453. Resa Mesullam, forty-six years.
- 3499. John, the son of Resa, forty years.

A. M.

- 3539. Judas Hircanus, fourteen.
- 3553. Joseph I., seven.
- 3560. Shimei, eleven.
- 3571. Mattathias, or Eli, twelve.
- 3583. Maath, or Asarmath, nine.
- 3592. Nagge, or nanges, ten.
- 3602. Heh, or Eli, eight.
- 3610. Nahum, seven.
- 3617. Amos Sirach, fourteen.
- 3631. Matthias, ten.
- 3641. Joseph II., sixty.
- 3701. John Hircanus, seventeen. This was the last prince of the Jews, of the royal family of David, and a progenitor of Jesus Christ (tritavus) in the seventh degree.
- 3718. An interregnum of sixty-two years.
- 3780. Mattathias Asmonæus, or Maccabæus, governed three years.
- 3783. Judas Maccabæus, six.
- 3789. Jonathan Maccabæus, eighteen.
- 3807. Simon Maccabæus, eight.
- 3815. John Hircanus I. thirty.
- 3845. Aristobulus I., king and high-priest; the first king of the Jews since Zedekiah, one year.
- 3846. Alexander Jannæus, twenty-seven.
- 3873. Queen Alexandra, nine.
- 3882. Hircanus II., three months.
- 3882. Aristobulus II., five years.
- 3887. Hircanus II., restored, twenty-three.
- 3909. Antigonus, one year.
- 3910. Herod the Great, thirty-eight.
- 3948. Archelaus, nine.
- 3957. Herod Antipas, twenty-five.
- 3983. Herod Agrippa I., seven.
- 3990. Herod Agrippa II., twenty-six.

The kingdom of Judah was of small extent compared with that of the kingdom of Israel; consisting only of two tribes, Benjamin and Judah: and being bounded on the east by the Jordan; on the west by the Mediterranean, in common with the Danites, except some places recovered by the Philistines, and others taken by the kings of Israel; on the south its limits seem to have been contracted by Hadad. 1 Kings xi. 15.

The tribe of Judah was one of the twelve divisions of Palestine by tribes (Josh. xv.), having Idumea on the south from the extremity of the Lacus Asphaltites, also the Wilderness of Zin, Cadesbarnea, and the brook or river of Egypt; on the east the said lake; on the west the Mediterranean; and on the north the mouth of the Jordan, Bethsemenes, Thimna, quite to Ebron on the sea.

JUDAH HAKKADOSH, or the saint, a rabbi celebrated for his learning and riches, lived in the time of the emperor Antoninus, and was the friend and preceptor of that prince. Leo of Modena, a rabbi of Venice, tells us, that rabbi Judah, who was very rich, collected, about twenty-six years after the destruction of the temple, in a book which he called the Mishna, the constitutions and traditions of the Jewish magistrates who preceded him. See MISHNA and TALMUD.

JUDAIZE, v. n. Fr. judaïser; low Latin

judaizo. To conform to the manner of the Jews.

Paul *judaised* with the Jews, was all to all *Sandys.*

JUDAS MACCABÆUS, a celebrated general of the Jews, renowned for his many victories over his enemies, at last slain in battle, 261 B.C. See JEWS,

JUDAS TREE, n.s. Lat. *siliquastrum.* A plant.

Judas tree yields a fine purplish, bright red blossom in the Spring, and is increased by layers. *Mortimer's Husbandry.*

JUDE (St.), or JUDAS, called also Lebbæus and Thaddæus, the son of Joseph, and brother of St James the younger. Matt. xiii. 55. He preached in Mesopotamia, Arabia, Syria, Idumea; and died in Berytus for the confession of Christ. He wrote that epistle which goes under his name, after the death of most of the apostles. He was cruelly put to death for reprobating the superstition of the Magi.

JUDEA. Se JUDEA.

JUDENBURG, a town and circle of Upper Styria, situated on the left bank of the Muhr, and the next place in the duchy to Gratz. The town has not, however, above 2000 inhabitants, and had hardly recovered from a dreadful fire which took place in 1807, when, on 18th of June 1818, another fire consumed the whole, except thirty houses. It was taken by the French in April 1797. It is thirty-eight miles west by north of Gratz, and 108 south-west of Vienna.

The CIRCLE OF JUDENBURG comprehends the western part of Upper Styria, and has a territorial extent of 2250 square miles. Inhabitants 95,000, of whom a large number are Lutherans. It is hilly, and sterile, but abounds in iron mines and works. Silver, lead, and nitre, are found here, though in smaller quantities; and at Aussee there are fine salt mines.

JUDEX (Matthew), one of the principal writers of the Centuries of Magdeburg, was born at Tippeswolde, in Misnia, in 1528. He taught theology with great reputation; but met with many disturbances in the exercise of his ministry from party feuds. He wrote several works, and died in 1564.

JUDGE, n.s. & v.a. Lat. *jus, judex, jucico.* These words are all derived from *jus*, right, equity: *judex* is one invested with authority to decide any question or cause; one who presides in a court of law or justice: one who has skill to determine upon the merit of any proposed subject of enquiry: judge, to decide; pass sentence; give an opinion; discern or distinguish, pass severe censure or doom, when used in scripture: judger, an old word for judge: judicatory, distribution of justice: a court of justice: judicature, power or authority to administer justice; also a court of justice: judicial, practised in the administration of justice; inflicted as a penalty: judicially, according to forms of justice: judiciary, passing judgment: judicious, prudent; wise; skilful in deter-

mining: judiciously, in a wise and discriminating manner.

Shall not the *judge* of all the earth do right?

Genesis.

Judge in yourselves: is it comely that a woman pray unto God uncovered? *1 Cor. xi. 13.*

How doth God know? Can he *judge* through the dark cloud? *Job xxii. 13.*

Your cours is don, your faith han he conserved; Goth to the crone of lif that may not faille; The rightful *juge*, which that ye han served, Shal yeve it you, as ye han it deserved.

Chaucer. The Second Nonnes Tale.

For your husband, He's noble, wise, judicious, and best knows The fits o' the season. *Shakspeare. Macbeth.*

Beshrew me, but I love her heartily; For she is wise, if I can *judge* aright. *Shakspeare.*

My lord Bassanio gave his ring away Unto the *judge* that begged it.

Id. Merchant of Veniee. The honour of the judges in their *judicature* is the king's honour. *Bacon's Advice to Villiers.*

No such crime appeared as the lords, the supreme court of *judicatory*, would judge worthy of death. *Clarendon.*

Thou art *judge* Of all things made, and judgest only right. *Milton.* Love hath his seat

In reason, and is judicious. *Id.* To eachavour meaning we apply; And palate call *judicious*. *Id.*

Authors to themselves, Both what they *judge* and what they chuse. *Id.* His zeal

None seconded, as out of reason judged Singular and rash. *Id.*

Before weight be laid upon *judiciary* astrologers, he influence of constellations ought to be made out. *Bogle.*

How dares your pride, As in a listed field to fight your cause, Unasked the royal grant; nor marshal by, As knightly rites require, nor *judge* to try. *Dryden.*

So bold, yet so judiciously you dare, That your least praise is to be regular. *Id.* Then those, whom form of laws Condemned to die, when traitors *judged* their cause. *Id.*

We are beholding to judicious writers of all ages for those discoveries they have left behind them. *Locke.*

Whether it be a divine revelation or no, reason must *judge*, which can never permit the mind to reject a greater evidence, to embrace what is less evident. *Id.*

It will behove us to think that we see God still looking on, and weighing all our thoughts, words, and actions in the balance of infallible justice, and passing the same *judgment* which he intends hereafter *judicially* to declare. *Grew.*

In *judicatures*, to take away the trumpet, the scarlet, the attendance, makes justice naked as well as blind. *South.*

The resistance of those will cause a *judicial* hardness. *Id.*

Her very *judges* wrung their hands for pity; Their old hearts melted in 'em as she spoke And tears ran down their silver beards.

Rowe's Lady Jane Grey.

How properly the tories may be called the whole body of the British nation, I leave to any one's judging. *Addison.*

One court there is in which he who knows the secrets of every heart will sit judge himself.

Sherlock.

Human *judicatories* give sentence on matters of right and wrong but inquire not into bounty and beneficence.

Attterbury.

What government can be without *judicial* proceedings? And what *judicature* without a religious oath?

Bentley.

A perfect *judge* will read each piece of wit, With the same spirit that its author writ. *Pope.*

We wisely strip the steed we mean to buy; *Judge* we in their caparisons of men. *Young.*

Their *judge* was conscience, and her rule their law, That rule, pursued with reverence and with awe, Led them, however faltering, faint, and slow, From what they knew, to what they wished to know.

Cowper. Truth.

A tale should be *judicious*, clear, succinct, The language plain, and incidents well linked; Tell not as new what every body knows, And, 'new or old, still hasten to a close.

Id. Conversation.

I judge thee by thy mates;

It is for God to judge thee as thou art.

Byron. Deformed Transformed.

Even so. I judged it fitting for their safety, That, ere the dawn, she sets forth with her children For Paphlagonia, where our kinsman Cotta Governs.

Id. Sardanapalus.

JUDGES. See **JUSTICE**:

JUDGES, in Jewish antiquity, supreme magistrates who governed the Israelites from the time of Joshua till the reign of Saul. They continued during the whole time of the republic of Israel; being a space of about 339 years. See **ISRAEL**.

JUDGES, for ordinary affairs, civil and religious, were appointed by Moses in every city to terminate differences; in affairs of greater consequence, the differences were referred to the priests of Aaron's family, and the judge of the people or prince at that time established. Moses likewise set up two courts in all the cities, one consisting of priests and Levites, to determine points concerning the law and religion; the other consisting of heads of families, to decide in civil matters.

JUDGES, Book of, a canonical book of the Old Testament, so called from its relating the state of the Israelites under the administration of many illustrious persons who were called judges, from being both the civil and military governors of the people, and who were raised up by God upon special occasions, after the death of Joshua, till the time of their choosing a king.

JUDGES, SELECT, judices selecti, in antiquity, were persons summoned by the praetor to give their verdict in criminal matters in the Roman courts, as juries do in ours. No person could be regularly admitted into this number till he was twenty-five years of age. The sortitio judicum, or impanneling the jury, was the office of the judex questionis, and was performed after both parties were come into court, for each had a right to reject or challenge whom they pleased, others being substituted in their room. The number of the judices selecti varied according to the nature of the charge. When the proper number appeared, they were sworn, took their places in the subsellia, and heard the cause.

VOL. XII.

JUDG'MENT, n. s. French *jugement* The power of discerning the relations between one term or one proposition and another.

O judgment! thou art fled to brutish beasts, And men have lost their reason.

Shakspeare. Julius Casar.

The faculty, which God has given man to supply the want of certain knowledge, is *judgment*, whereby the mind takes any proposition to be true or false, without perceiving a demonstrative evidence in the proofs.

Locke.

Judgment is that whereby we join ideas together by affirmation or negation; so, this tree is high.

Watts.

And *judgment* drunk, and bribed to lose his way, Winks hard, and talks of darkness at noon day.

Cowper. Progress of Error.

Doom; the right or power of passing judgment.

If my suspect be false, forgive me God; For *judgment* only doth belong to thee.

Shakspeare..

The act of exercising *judicature*; *judicatory*. They gave *judgment* upon him. *2 Kings.*

When thou, O Lord, shalt stand disclosed

In majesty severe.

And sit in *judgment* on my soul,

O how shall I appear? *Addison's Spectator.*

Determination; decision.

Where distinctions or identities are purely material, the *judgment* is made by the imagination, otherwise by the understanding.

Glanville's Scepsis.

We shall make a certain *judgment* what kind of dissolution that earth was capable of.

Burnet's Theory.

Reason ought to accompany the exercise of our senses, whenever we would form a just *judgment* of things proposed to our inquiry.

Watts.

The quality of distinguishing propriety and impropriety; criticism.

Judgment, a cool and slow faculty, attends not a man in the rapture of poetical composition.

Dennis.

'Tis with our *judgments* as our watches, none Go just like; yet each believes his own. *Pope.*

You must not every worm promiscuous use,

Judgment will tell the proper bait to choose.

Gay's Rural Sports.

Opinion; notion.

I see men's *judgments* are

A parcel of their fortunes, and things outward

Draw the inward quality after them,

To suffer all alike.

Shakspeare. Antony and Cleopatra.

When she did think my master loved her well, She, in my *judgment*, was as fair as you.

Shakspeare.

Sentence against a criminal.

The chief priests informed me, desiring to have *judgment* against him.

Acts xxv. 15.

When he was brought again to the bar, to hear His knell rung out, his *judgment*, he was stirred With agony.

Shakspeare. Henry VIII.

On Adam last this *judgment* he pronounced.

Milton.

Condemnation. This is a theological use.

The *judgment* was by one to condemnation; but the free gift is of many offences unto justification.

Rom. v. 16.

The precepts, promises, and threatenings of the Gospel will rise up in *judgment* against us, and the articles of our faith will be so many articles of accusation.

Tillotson.

S

Punishment inflicted by providence, with reference to some particular crime.

What man hereforth that breatheth vitall aire
Will honour heaven, or heavenly powers adore,
Which so unjustly doth their judgments share,
'Mongst earthly wights, as to affict so sore
The innocent, as those which do transgresse,
And doe not spare the best or fairest more
Than worst or foulest, but doe both oppresse ?

Spenser. Daphnidea.

This judgment of the heavens, that makes us tremble,

Touches us not with pity. *Shakspeare. King Lear.*

We cannot be guilty of greater uncharitableness than to interpret afflictions as punishment and judgments: it aggravates the evil to him who suffers, when he looks upon himself as the mark of divine vengeance.

Addison's Spectator.

Distribution of justice.

The Jews made insurrection against Paul, and brought him to the judgment seat. *Acts xviii. 12.*

This false knight was staine for his untrouth, By judgement of Alla hastily.

Chaucer. The Man of Lawes Tale.

Your dishonour

Manglos true judgment, and bereaves the estate Of that integrity which should become it.

Shakspeare.

Justiciary law.

I am charged to tell his highness that the court Has passed its resolution, and that, soon As the due forms of judgment are gone through, The sentence will be sent up to the Doge.

Byron. Marino Faliero.

The last doom.

At every time that me remembroth of the day of dome, I quake; for when I ete or drinke, or do what so I do, ever semeth me that the trompe sowneth in mine eres, riseth ye up that bended and cometh to the judgement. O good God! moche ought a man to dredre swiche a judgement ther as we shul be alle, as Saint Poule sayth, before the streit judgement of oure Lord Jesu Crist, wheras he shal make a general congregation, wheras no man may be absent.

Chaucer. The Persons Tale.

JUDGMENT, among logicians, a faculty, or rather act of the human soul, whereby it compares its ideas, and perceives their agreement or disagreement. See LOGIC, and METAPHYSICS.

JUDGMENT, in law, is the sentence pronounced by the court upon the matter contained in the record. Judgments are of four sorts. First, where the facts are confessed by the parties, and the law determined by the court; as in the case of judgment upon demurrer: secondly, where the law is admitted by the parties, and the facts disputed; as in the case of judgment on verdict: thirdly, where both the fact and the law arising thereon are admitted by the defendant; which is the case of judgments by confession or default: or, lastly, where the plaintiff is convinced that either fact, or law, or both, are insufficient to support his action, and therefore abandons or withdraws his prosecution; which is the case in judgments upon a nonsuit or retraxit. The judgment, though pronounced or awarded by the judges, is not their determination or sentence, but the determination and sentence of the law; it is the remedy prescribed by law for the redress of injuries; and the suit or action is the vehicle or means of administering it. What that remedy may be, it is indeed the result of delibera-

tion and study to point out; and therefore the style of the judgment is not that it is decreed or resolved by the court, for then the judgment might appear to be their own; but 'it is considered,' consideratum est per curiam, that the plaintiff do recover his damages, his debt, his possession, and the like: which implies that the judgment is none of their own; but the act of law, pronounced and declared by the court, after due deliberation and enquiry. See *Blackstone's Comment.*

JUDGMENT, in criminal cases, is the next stage of prosecution, after trial and conviction are past. For when, upon a capital charge, the jury have brought in their verdict guilty, in the presence of the prisoner, he is either immediately, or at a convenient time soon after, asked by the court, if he has any thing to offer why judgment should not be awarded against him. And in case the defendant be found guilty of a misdemeanor (the trial of which may, and does usually, happen in his absence, after he has once appeared), a capias is awarded and issued, to bring him in to receive his judgment; and, if he absconds, he may be prosecuted even to outlawry. But whenever he appears in person, upon either a capital or inferior conviction, he may at this period, as well as at his arraignment, offer any exceptions to the indictment, in arrest or stay of judgment: as for want of sufficient certainty in setting forth either the person, the time, the place, or the offence. And, if the objections be valid, the whole proceedings shall be set aside. A pardon also may be pleaded in arrest of judgment: and it is the same when pleaded here as when upon arraignment; viz. the saving the attainer, and, of course, the corruption of blood: which nothing can restore but parliament, when a pardon is not pleaded till after sentence. And certainly, upon all accounts, when a man has obtained a pardon, he is in the right to plead it as soon as possible. Praying the benefit of clergy may also be ranked among the motions in arrest of judgment. See CLERGY. If all these resources fail, the court must pronounce that judgment which the law has annexed to the crime. Of these some are capital, which extend to the life of the offender, and consist generally in being hanged by the neck till dead; though, in very atrocious crimes, other circumstances of terror, pain, or disgrace, are superadded: as, in treasons of all kinds, being drawn or dragged to the place of execution; in high treason affecting the king's person or government, beheading; and, in murder, a public dissection. But the humanity of the English nation has authorised, by tacit consent, an almost general mitigation of such judgments as favor torture or cruelty: a sledge or hurdle being usually allowed to such traitors as are condemned to be drawn. Some punishments consist in exile or banishment, by abjuration of the realm, or transportation to New South Wales: others in loss of liberty, by perpetual or temporary imprisonment. Some extend to confiscation, by forfeiture of lands, or moveables, or both; or of the profits of lands for life: others induce a disability of holding offices or employments, of being heirs, executors, and the like. Some are merely pecuniary, by stated

or discretionary fines: and, lastly, there are others that consist principally in their ignominy, though most of them are mixed with some degree of corporeal pain; and these are inflicted chiefly for such crimes as either arise from indigence, or render even opulence disgraceful: such as whipping, hard labor in the house of correction, and the stocks. Disgusting as this catalogue may seem, it will afford pleasure to a British reader, and do honor to the British laws, to compare it with that shocking apparatus of death and torment to be met with in the criminal codes of almost every other nation in Europe. And it is moreover one of the glories of our law, that the nature, though not always the quantity or degree of punishment, is ascertained for every offence; and that it is not left in the breast of any judge, nor even of a jury, to alter that judgment which the law has beforehand ordained for every subject alike, without respect of persons.

JUDICIA CENTUMVIRALIA, in Roman antiquity, were trials before the centumviri, to whom the prætor committed the decision of certain questions of inferior nature, like our justices of peace at the quarter sessions. During these trials, a spear was stuck up in the forum, to signify that the court was sitting.

JUDICIO CALUMNIE, was an action brought against the plaintiff for false accusation. The punishment, upon conviction, was inustio frontis, or branding in the forehead. See INUSTIO.

JUDICIO DEI, judgment of God, was a term anciently applied to all extraordinary trials of secret crimes; as those by arms, and single combat, and the ordeals; or those by fire, or red hot plough-shares; by plunging the arm in boiling water, or the whole body in cold water; in hopes God would work a miracle, rather than suffer truth and innocence to perish. These customs were long kept up even among Christians. See BATTLE, ORDEAL, &c.

JUDICIO PREVARICATIONIS was an action brought against the prosecutor, after the criminal was acquitted, for suppressing the evidence of, or extenuating his guilt, rather than urging it home, and bringing it to light.

JUDITH, Heb. יְהוּדָה, i. e. praising, the daughter of Merari, a Jewish heroine, whose history is related in the apocryphal book which bears her name. See APOCRYPHA and HOLOFERNES.

JUDITH'S RIVER, a river of North America, which has its source in the Rocky Mountains, near that of the Muscleshell and the Yellowstone River. Its entrance is 100 yards wide from bank to bank, the water occupying about seventy-five yards. It is a clear fine stream: the bed being composed entirely of gravel and mud with some sand. The low grounds in the vicinity are wide and woody, and here is abundance of the large horned animals. In its waters are a great number of beavers.

IUERNUS, in ancient geography, a town in the south-west of Ireland: now called Dunkeram (Camden): called Donekyne by the natives, situated on the Maire, in the province of Munster.

IUERNUS, or IERNUS, a river in the south-west

of Ireland, now called the Maire, or Kenmare, running from east to west in the province of Munster.

IVES, or YVES (St.), a celebrated bishop of Chartres, born in the territory of Beauvais, in the year 1035. His merit procured his election to the see of Chartres in 1092, or 1093, under the pontificate of Urban II., who had deposed Geoffroy his predecessor. He compiled a Collection of Decrees, and wrote twenty-two sermons, published in 1647, in folio. He died A. D. 1115.

IVES (John), F. R. S. and F. A. S., a late celebrated antiquarian, born at Yarmouth in 1751. He published Select Papers, 1773: Remarks on the Garianonum of the Romans, 12mo. 1774 and died in 1776.

IVES (St.), a borough and sea-port town of Cornwall, seated on a bay of the same name; its harbour having been almost choked up by the vast shoals of sand driven upon this coast by the north-west winds, the magistrates and trustees of the port, in 1816, resolved to extend the pier, and to construct a breakwater, to shelter the port, by which means it is calculated that the harbour will accommodate 200 sail of large vessels at spring-tides, and the town be highly benefited. The rocks here are streaked with a resemblance of copper, of which there are some mines in the neighbourhood. It is a custom of the manor here, that, on the death of every person worth ten pounds, ten shillings shall be paid to the vicar. By the pilchard trade, and that of Cornish slates, this town has thriven greatly, and twenty or thirty sail of ships belong to it. It is a corporation, governed by a mayor, thirty-six burgesses, a recorder, town-clerk, &c., and sends two members to parliament. It has a spacious church, which is often washed by the sea.

IVES (St.), a market-town in Huntingdonshire, sixty-four miles from London. It has a fine stone bridge over the Ouse, had in the ninth century a mint, and was noted for its medicinal water. It has a good market on Monday for fatted cattle brought from the north; and two fairs. Here Oliver Cromwell rented a farm before he was chosen a burgess for Cambridge.

JUG, n. s. Dan. *jugge*; Lat. *jugulum*. A large drinking vessel with a gibbous or swelling belly.

You'd rail upon the hostess of the house,
Because she bought stone jugs and no sealed quarts.
Shakspeare.

He fetched 'em drink,
Filled a large jug up to the brink. *Swift.*

JUGERUM, in Roman antiquity, a square of 120 Roman feet; its proportion to the English acre being as 10'000 to 16'097.

JUGGERNATH, or JAGATNATHA, (i. e. the Lord of the world), a temple and place of Hindoo worship, on the sea coast of Orissa, near the town of Pursotem, esteemed by its wretched votaries the most sacred of their establishments. From a distance it seems a shapeless mass of building, forming an excellent land-mark for navigators. On approaching it several courts or enclosures are found to surround the interior, where no European is admitted. At the outer gate are two large statues of an imaginary animal, nearly

as large as an elephant. Juggernath, the idol, is made of dark wood, with a distended mouth, and frightful visage. At his side are seated two other images, one painted white, the other yellow: the first is said to be that of his sister Shubndra, the other his brother Balaram. These images on particular festivals are dressed, and placed on an immense carriage or moving tower, called a rukti, which is drawn by the pilgrims attending the place. During the procession devotees sacrifice themselves, by falling under the wheels of this carriage. Juggernath is accounted one of the incarnations of Vishnu, and the temple here is known to have existed above 800 years. Between the years 1720 and 1730 the rajah of Persotem removed the image to the mountains on the western border of Orissa, which injured the revenues; but the nabob Alaverdy Khan made him restore it. The concourse of pilgrims to this place is so immense, that the revenue which the East India Company derived from them amounts it is said, to £12,000 annually. A road has been lately made from Calcutta to Juggernath, at the expense principally of a rich Hindoo.

JUG'GLE, *v. n. & n. s.* } Fr. *jongler*; Lat.

JUG'GLER, *n. s.* } *joculator*. To play

JUG'GLING, *adv.* } tricks by slight of hand; to practice artifice or imposture: juggle, a trick of legerdemain; an imposture, or deception: juggler, one who practises slight of hand; a cheat, a trickish fellow: jugglingly, after the manner of a cheat.

Aristaeus was a famous poet, that flourished in the days of Croesus, and a notable *juggler*. *Sandys*.

They say this town is full of cozenage,

As nimble *jugglers* that deceive the eye,

Drug-working sorcerers that change the mind,

Disguised cheaters, prating mountebanks,

And many such like libertines of sin. *Shakspeare*.

Is't possible the spells of France should joggle
Men into such strange mockeries? *Id.*

O me, you *juggler*: oh, you canker blossom,
You thief of love: what, have you come by night
And stolen my love's heart from him? *Id.*

Be these *juggling* fiends no more believed,
That palter with us in a double sense.

Id. Macbeth.

I saw a *juggler* that had a pair of cards, and would tell a man what card he thought. *Bacon.*

I sing no harm

To officer, *juggler*, or justice of peace. *Donne.*
The ancient miracle of Memnon's statue seems to be a *juggling* of the Ethiopian priests. *Dibby.*

They ne'er forswore themselves, nor lied,

Disdained to stay for friends consents;
Nor jugged about settlements. *Hudibras.*

Fortune-tellers, *jugglers*, and impostors, do daily delude them. *Browne's Vulgar Errors.*

The notion was not the invention of politicians, and a *joggle* of state to cozen the people into obedience. *Tillotson.*

The *juggler* which another's slight can shew,
But teaches how the world his own may know. *Garth.*

One who is managed by a *juggler* fancies he has money in hand; but, let him grasp it never so carefully, upon a word or two it increases or dwindles. *Addison's Freeholder.*

What magick makes our money rise,

When dropt into the sou'thern main;

Or do there *jugglers* cheat our eyes? *Swift.*

Let all my soldiers quaff
That generous juice, by *juggling* priests denied.
Darcy's Love and Ambition.
Keep thy smooth words and *juggling* homilies
For those who know thee not.

Byron. Sardanapalus.

JUGLANS, in botany, a genus of the monocotyledonous order, and polyandria class of plants; natural order fifth, amentaceæ. Male CAL. monophyllous and squamiform: COR. divided into six parts; there are eighteen filaments. Female CAL. quadrifid, superior: COR. quadripartite; there are two styles, and the fruit a plum with a furrowed kernel. There are five species.

1. *J. alba*, the white, and

2. *J. nigra*, the black Virginia walnut, are cultivated in this country, though, having very small kernels, they are less proper for fruit than the

3. *J. regia*, the common walnut. This tree rises fifty feet high or more, with a large upright trunk, branching into a very large spreading head, with large pinnated leaves, of two or three pairs of oval, smooth, somewhat serrated lobes, terminated by an odd one; and monoecious flowers, succeeded by clusters of large green fruit enclosing furrowed nuts of different shapes and sizes. All the sorts are propagated by planting their nuts, which will grow in any common soil. The nuts being procured in the proper season, in their outer covers or husks if possible, they should be preserved in dry sand until February, and then planted. After two years' growth in the seed-bed, they are to be taken out, and planted in the nursery, where they must remain till grown five or six feet high, when they must be transplanted where they are to remain; but, if intended for timber as well as fruit trees, they ought to be finally transplanted when they have attained the height of three or four feet. The fruit is used at two different stages of growth; when green to pickle, and when ripe to eat raw. Walnuts are ready for pickling in July and August, and are fully ripe in September and October. As soon as gathered, lay them in heaps a few days to heat and sweat, to cause their outer husks, which adhere closely, to separate from the shell of the nut; then clean them from the rubbish, and deposit them in some dry room for use, covering them over closely with dry straw half a foot thick, and they will keep three or four months. The wood of the walnut tree is also very valuable; cabinet-makers esteem it highly for several sorts of furniture and light works; for, being beautifully veined, it takes a fine polish, and the more knotty it is, the more it is valued. Walnut trees are also well adapted for planting round the borders of orchards, where, by their large spreading heads, they guard the smaller fruit trees from boisterous winds. The kernels are similar in quality to almonds, but are not, like them, used in medicine.

JUGLER (John Frederick), a Saxon philosophical writer, was born near Naumburgh, in 1714. Having been for some time employed in teaching youth, he was nominated counsellor to the king of England, and Inspector of the Equestrian Academy of Lunenburg. He died in 1791. His principal literary work is *Bibliotheca Historie*

Literariæ Selecta, 3 vols. 8vo. founded on Struve's Introduction to the History of Literature. He was the author likewise of Memoirs of Eminent European Statesmen and Lawyers, 6 vols. 8vo.; a Dissertation on the Use of Libraries, &c.

JU'GULAR, *adj. & n. s.* Lat. *jugulum*. Belonging to the throat: a vein of the neck.

A gentleman was wounded into the internal *jugular*, through his neck. *Wiseman's Surgery.*

He died as born, a Catholic in faith,
Like most in the belief in which they're bred,
And first a little crucifix he kissed,
And then held out his *jugular* and wrist.

Byron. Don Juan.

JUGULAR, among anatomists, is applied to certain veins and glands of the neck. See ANATOMY.

JUGULARES, in the Linnæan system, an order or division of fish, the general character of which is, that they have ventral fins before the pectoral fins. See the article PISCES.

JUGUM, the yoke, a disgrace inflicted by the Romans upon their vanquished enemies, by making them pass singly between two spears, with a third laid over the top of them.

JUGURTHA, the illegitimate son of Manstabal, the brother of Micipsa, sons of Masinissa, king of Numidia. Micipsa, who inherited his father's kingdom, educated his nephew with his two sons Adherbal and Hiempsal; but, as he saw that the former was of an aspiring disposition, he sent him with a body of troops to the assistance of Scipio, who was besieging Numantia, hoping thus to get rid of a youth whose ambition seemed to threaten the tranquillity of his children. His hopes were frustrated; Jugurtha showed himself brave and active, and endeared himself to the Roman general. Micipsa appointed him successor to his kingdom along with his sons; but the kindness of the father proved fatal to the children. Jugurtha destroyed Hiempsal, and stripped Adherbal of his possessions, and obliged him to fly to Rome. The Romans listened to the well-grounded complaints of Adherbal; but Jugurtha's gold prevailed among the senators, and the suppliant monarch, forsaken in his distress, perished by the snares of his enemy. Cæcilius Metellus was at last sent against Jugurtha; and his firmness and success soon reduced the crafty Numidian, obliging him to fly among his savage neighbours for support. Marius and Sylla succeeded Metellus, and fought with equal success. Jugurtha was at last betrayed by his father-in-law Bocchus, and delivered up to Sylla, A. A. C. 106. He was exposed to the view of the Roman people, and dragged in chains to adorn the triumph of Marius. He was afterwards thrown into prison, and suffered to perish of hunger.

IVICA, or YVICA. See YVICA.

JUICE, *n. s.* Lat. *jus*; Fr. *jus*; Dut. *juice*. JUICELESS, *adj.* { *juys*. The sap of plants and

JUICINESS, *n. s.* { fruits; formerly the fluids JUICY, *adj.* { of animal bodies were so called: juiceless, without moisture, or fluidity: juicy, moist; full of juice; succulent.

Earth being taken out of watery woods, will put forth herbs of a fat and *juicy* substance. *Bacon.*

Each plant and *juiciest* gourd will pluck. *Milton.*

Juice in language is less than blood; for if the words be but becoming and signifying, and the sense

gentle, there is *juice*; but where that wanteth, the language is thin, scarce covering the bone.

Ben Jonson's Discoveries.

The musk's surpassing worth! that in its youth, Its tender nouage, loads the spreading boughs With large and *juicy* offspring. *Phillips.*

When Boreas' spirit blusters sore, Beware the inclement heavens; now let thy hearth Crackle with *juicless* boughs. *Id.*

An animal whose *juices* are unsound can never be nourished: unsound *juices* can never repair the fluids. *Arbutus.*

If I define wine, I must say, wine is a *juice* not liquid, or wine is a substance; for *juice* includes both substance and liquid. *Watts.*

Unnumbered fruits, A friendly *juice* to cool thirst's rage contain. *Thomson.*

Pleasure admitted in undue degree Enslaves the will, nor leaves the judgment free. 'Tis not alone the grape's enticing *juice* Unerves the moral powers, and mars their use. *Couper. Progress of Error.*

The grapes gay *juice* thy bosom never cheers— Thou—more than Moslem—when the cup appears— Think not I mean to chide—for I rejoice What others deem a penance in thy choice. *Byron. Corsair.*

The JUICES OF PLANTS, for medicinal purposes, are expressed to obtain their essential salts, either to be used without preparation, or to be made into syrups and extracts. The general method is, by pounding the plant in a marble mortar, and then by putting it into a press. In this manner is obtained a muddy, green liquor, which generally requires to be clarified. All juices are not extracted with equal ease. Some plants, even when fresh, contain so little juice, that water must be added. Others, which contain a considerable quantity of juice, furnish but a small quantity of it by expression, because they contain also much mucilage, which renders the juice so viscid that it cannot flow.—Water must also be added to these plants to obtain their juice. The juices thus obtained are not, properly speaking, one of their principles, but a collection of all the proximate principles of plants soluble in water. The juice contains also some part of the resinous substance, and the green coloring matter, which in almost all vegetables is of a resinous nature. Juices which are acid, and not very mucilaginous, are spontaneously clarified by rest and gentle heat. The juices of most antiscorbutic plants, abounding in saline volatile principles, may be disposed to filtration merely by immersion in boiling water; and as they may be contained in closed bottles, while they are thus heated in a water bath, their saline volatile part, in which their medicinal qualities chiefly consist, may thus be preserved.

The most general method of clarification, for those juices which contain much mucilage, is boiling with the white of an egg. The juices, especially before they are clarified, contain almost all the same principles as the plant itself; because, in the operation by which they are extracted, no decomposition happens, but every thing remains, as to its nature, in the same state as in the plant. The principles contained in the juice are only separated from the grosser, oily, earthy, and resinous part, which compose the solid matter that remains under the press. These

juices, when well prepared, have therefore the same medicinal qualities as the plants from which they are obtained. Different parts of the same plant, yield different juices. The same veins in their course through the different parts of the plant, yield juices of a different appearance. Thus the juice in the root of the cow parsnip is of a brimstone color; but in the stalk it is white.

JU'JUB. *n. s.* { Lat. *zizyphus*. A plant **JU'JUBES**, *n. s.* whose flower consists of several leaves, which are placed circularly and expand in form of a rose. The fruit is like a small plum, but it has little flesh upon the stone.—Miller.

JKUE, v. n. Fr. *jucher*.

To perch upon any thing as birds.

Juking, in Scotland, denotes still any complaisance by bending of the head.

Two asses travelled; the one laden with oats, the other with money: the money-merchant was so proud of his trust, that he went *juking* and tossing of his head.

L'Estrange.

JUL, or **JOL**, a Gothic word signifying a sumptuous feast; and particularly applied to a religious festival, first among the heathens and afterwards Christians. By the latter it was given to Christmas; which is still known under the name **Iul**, **Iule**, or **Yool**, and hence too **January** was by the Saxons styled **Giuli**, i. e. the Festival. As this feast had originally been dedicated by our heathen ancestors to the sun, their supreme deity; so the Christians, for the purpose of engaging the minds of their Gentile brethren, ordered it should be celebrated in memory of the birth of Christ: and thus it has been through ages a feast of joy and entertainment.

JULAMERICK, an elevated district in the east of Kurdistan, having the pachalic of Bagdad on the south, and Armenia on the north. It produces in some places a quantity of corn, and abundance of pasture every where. There is a great number of villages, but only one town in the province, called also **Julamerick**. It is on the banks of the **Hakiar**, and has a citadel built of stone. Inhabitants 1000: 120 miles E. S. E. of **Betlis**.

JUL' LAP, *n. s.* A word of Arabic original; Low Lat. *jalupium*; Fr. *julep*.

Behold this cordial *jalup* here,

That flames and dances in his crystal bounds
With spirits of balm and fragrant syrups mixt.

Milton.

Jalup is an extemporaneous form of medicine, made of simple and compound water sweetened, and serves for a vehicle to other forms not so convenient to take alone.

Quincy.

If any part of the after-birth be left, endeavour the bringing that away; and by good sudorifics and cordials expel the venom, and temperate the heat and acrimony by *jalups* and emulsions.

Wiseman's *Surgery*.

Here the great masters of the healing art,
These mighty mock-draffers of the tomb,
Spite of their *jalups* and catholicons
Resign to fate!

Blair's *Grave*.

JULAP, or **JULEP**. See **PHARMACY**.

JULIA, the daughter of Augustus, was famous for her accomplishments, and infamous for her lewdness, for which her father banished her. She married Metellus, Agrippa, and lastly Tiberius; who suffered her to perish for want.

JULIA LEX, in Roman antiquity, a law made by Julius Cæsar, A. U. C. 691; confirming the privileges of all Greece; and ordaining that the Roman magistrates should act there as judges, &c. There were nine other **Julia Leges** enacted in the reign of Augustus; one of which punished adultery with death; and another, *de mariandis ordinibus*, proposed rewards to such, of a certain description, as married, and punished celibacy. It also permitted patricians, senators excepted, to intermarry with libertini.

JULIAN, a celebrated Roman emperor, styled the Apostate, because, though he professed the Christian religion before he ascended the throne, he afterwards openly embraced Paganism, and endeavoured to abolish Christianity. He made no use of violence, however, for this purpose; but behaved with a politic mildness to the Christians; recalled all who had been banished on account of religion under Constantius: but he prohibited Christians to plead before courts of justice, or to enjoy any public employments. He even prohibited their teaching polite literature; well knowing the great advantages they drew from profane authors in their attacks upon Paganism and irreligion. Though he on all occasions showed a sovereign contempt for the Christians, whom he called Galileans, yet he was sensible of the advantage they obtained by their virtue and the purity of their manners; and therefore incessantly proposed their example to the Pagan priests. At last, however, when he found that all other methods failed, he gave public employments to the most cruel enemies of the Christians, when the cities in most of the provinces were filled with tumults and seditions, and many of them were put to death. Historians mention, that Julian attempted to prove the falsehood of our Lord's prediction with respect to the temple of Jerusalem, by rebuilding it; but that all his endeavours served only the more perfectly to verify it. See **JERUSALEM**. Julian being mortally wounded, in a battle with the Persians, it is said that he caught in his hand some of the blood which flowed from his wound, and throwing it towards heaven, cried, 'Thou Galilean hast conquered.' But Theodoret relates, that Julian discovered a different disposition, and employed his last moments in conversing with Maximus the philosopher, on the dignity of the soul. He died the following night, aged thirty-two. For an account of his reign and exploits, see **WESTERN EMPIRE**. No prince was ever more variously represented by different authors; on which account it is difficult to form a true judgment of his character. It must, however, be acknowledged, that he was learned, liberal, temperate, brave, vigilant, and a lover of justice; but, on the other hand, he had apostatised to Paganism; was an enemy to the Christian religion; and was, in fact, a persecutor, though not of the most sanguinary class. We have several of his discourses or orations; some of his letters; a treatise entitled *Misopogon*, which is a satire on the inhabitants of Antioch; and some other pieces, all written in an elegant style. They were published in Greek and Latin by father Petau in 1630, in 4to., and Spanhemius gave a fine edition of them in

folio in 1696. His most famous work was that composed against the Christians, of which some fragments are preserved in Cyril's refutation of it.

JULIAN ALPS, an extensive chain of mountains in Maritime Austria, between Italy and Germany, chiefly in the province of Friuli.

JULIAN CALENDAR, that depending on and connected with the Julian year. See KALENDAR.

JULIAN EPOCH, the era of the institution of the Julian reformation of the calendar, which began A. D. C. 46.

JULIAN PERIOD, in chronology, a period so called, as being adapted to the Julian year. See CHRONOLOGY, Index. It is made to commence before the creation. Its principal advantage is, that the same years of the cycles of the sun, moon, and indiction, of which three cycles it was made to consist by Joseph Scaliger in 1580, belonging to any year of this period, will never fall together again till after the expiration of 7980 years. There is taken for the first year of this period that which has the first of the cycle of the sun, the first of the cycle of the moon, and the first of the indiction cycle, and so reckoning on. The first year of the Christian era is always, in our systems of chronology, the 4714th of the Julian period. To find what year of the Julian period any given year of Christ answers to: to the given year of Christ add 4713, because so many years of the Julian period were expired A. D. 1.; and the sum gives the year of the Julian period sought.

JULIEN (Pierre), one of the most eminent of modern sculptors, was born in 1731, at Pauillen in France, and applied himself to the study of the art at Lyons, where he obtained an academical prize. He then went to Paris, and placed himself under Coustou; visited Rome in 1768; and left behind him several admirable specimens which he there executed. Ten years afterwards appeared his principal production, *The Dying Gladiator*. This gained him a seat in the French Academy, and his best works still excite the admiration of connoisseurs. He died in 1804.

JULIERS, a fertile duchy of Westphalia, now annexed to Prussia, and included in the government of Aix-la-Chapelle. It is seated between the Maese and the Rhine, and bounded by Prussian Guelderland on the north, by Cologne on the east, and by the Netherlands on the west. It contains a superficial area of about 1600 miles, and yields an annual revenue of £100,000. Its horses and flax are much esteemed, and form large articles of trade. Fine linen is also manufactured and sent to Holland. The duchy belonged for a considerable time to the sovereigns of Cleves; but, the reigning family becoming extinct in 1609, the succession was disputed during the long war, terminated by the peace of Westphalia in 1642. By that treaty, Juliers was allotted to the palatine of Neuberg, and belonged to that family, and to the elector palatine, till the peace of Luneville, when it was ceded to France: in 1815 it was first transferred to Prussia.

JULIERS, or **JULICH**, is a small strong town

in the government of Aix-la-Chapelle, the capital of the above duchy. It stands near the Ruht, and has manufactures of vinegar and leather. It was taken by prince Maurice of Nassau in 1610, and by the Spaniards in 1622. It was surrendered at discretion to the French under Pichegrus on the 9th of October, 1794, after a battle fought near it on the 6th, wherein the Austrians lost above 4000 men killed and wounded, and 800 prisoners. There were six pieces of cannon, and 50,000 lbs. of powder in the arsenal. Inhabitants 2150: twenty-two miles west of Cologne, and fifteen north-east of Dusseldorf.

JULIS, a town of the isle of Coos, famous for being the birth place of Simonides. Its walls were of marble (Plin. iv. c. 12), and there are still parts of these monuments of its ancient splendor remaining entire, above twelve feet high.

JULIUS, the surname of a celebrated patrician family in Rome, who claimed their descent from *Iulus*, the son of *Aeneas*. They were brought to Rome by Romulus, where they soon enjoyed the highest offices in the republic, which was at last overturned by one of them. The Caesars were a branch of the Julian family.

JULIUS CESAR. See **CESAR**.

JULIUS I., pope of Rome, succeeded Mark, A. D. 337. He was a man of great learning and piety. Some of his letters are extant. He sent legates to the council of Sardis, and supported the cause of Athanasius. He died in 352.

JULIUS II. (Julian de la Rovere), pope, remarkable for his warlike disposition: he engaged the principal powers of Europe to league with him against the republic of Venice, called the League of Cambrai, in 1508. The Venetians having purchased peace, by the cession of part of Romania, Julius turned his arms against Louis XII. king of France, and appeared in person, armed cap-a-pee, at the siege of Mirandola; which he took by assault in 1511. But, proceeding to excommunicate Louis, the king wisely turned his own weapons against him, by calling a general council at Pisa; at which the pope, refusing to appear, was declared to be suspended from the holy see; and thus Louis, in his turn, excommunicated the pope, who died soon after in 1512. He built the famous church of St. Peter at Roine, and was a patron of the polite arts.

JULIUS VICUS, in ancient geography, a town of the Nemetes in Gallia Belgica, situated between the Tres Tabernæ, and Noviomagus, now called **GERMERSHEIM**, which see.

JULLIE, a town of France in the department of Rhone and Loire, five miles north of Villefranche.

IULUS, a name of Ascanius.

IULUS, a son of Ascanius, born in Lavinium. In the succession of the kingdom of Alba, *Aenius Sylvius*, the son of *Aeneas* and *Lavinia*, was preferred to him. He was, however, made chief priest.

IULUS, in entomology, a genus of insects of the order aptera. The feet are very numerous, being on each side twice as many as the seg-

ments of the body; the antennæ are moniliform; there are two articulated palpi; and the body is of a semicylindrical form. There are several species.

1. *I. sabulosus*, is of an ashen color, smooth, and sometimes has two longitudinal bands of a dun-color upon its back. The body is composed of about sixty segments, which appear double; one part of the segment being quite smooth, the other charged with longitudinal striae, set very close together, which causes the cylindric body of the insect to appear intersected alternately with smooth and striated segments. Each segment gives rise to two pairs of feet, which makes 240, or 120 feet on each side. These feet are slender, short, and white. The antennæ are very short, and consist of five rings. The insect, when touched, rolls itself up into a spiral form; so that its feet are inwards, but yet turned towards the ground. It is found together with the following species, to which it bears a resemblance, though it is much larger.

2. *I. terrestris*, is a small species, having on each side 100 very short closely set feet. The body is cylindrically round, consisting of fifty segments, each of which gives rise to two pairs of feet; by which means the feet stand two and two by the side of each other, so that between every two there is a little more space. Its color is blackish, and the animal is very smooth. It is met with under stones, and in the earth. See ENTOMOLOGY.

JU'LUS, n. s. July flower.

Julus, Ιολος, among botanists, denotes those long worm-like tufts or palms, as they are called in willows, which at the beginning of the year grow out, and hang pendular down from hazels, walnut-trees, &c.—Miller.

JULY, n. s. Lat. *Julius*; Fr. *juillet*. The ninth anciently called quintilis, or the fifth from March, named July in honor of Julius Caesar; the seventh month from January.

Then came hot *July*, boiling like to fire,
That all his garments he had cast away
Upon a lion raging yet with ire,
He boldly rode and bade him to obey.

Spenser. *Faerie Queene*.

July I would have drawn in a jacket of light yellow, eating cherries, with his face and bosom sunburnt. Peacham.

Tight boxes, neatly sashed, and in a blaze,
With all a *July* sun's collected rays,
Delights the citizen, who gasping there,
Breathes clouds of dust, and calls it country air.

Cowper. *Retirement*.

JULY, the month during which the sun enters the sign Leo. Mark Antony first gave this month the name of Julius, after Julius Caesar, who was born in it. On the 19th day of this month the dog-days are commonly supposed to begin; when, according to Hippocrates and Pliny, 'the sea boils, wine turns sour, dogs go mad, the bile is increased and irritated, and all animals decline and languish.'

JU'MART, n. s. Fr.

Mules and *jumarts*, the one from the mixture of an ass and a mare, the other from a mixture of a bullock and a mare, are frequent.

JUM'BLE, v. a., v. n., & n. s. In Chaucer *jombre*, from Fr. *combler*.—Skinner. To mix violently and confusedly together: to be agitated together: jumble, confused mixture; a mass of incongruous articles.

Ne *jombre* no discordant thing ifere,
As thus, to usen termes of phisicke;
In loves termes holde of thy materie
The forme alwaie; and doe that it be lik;
For if a painter would ypaint a pike
With asses feete, and hedded as an ape,
It cordeth not; so were it but a jape!

Chaucer. *Troilus and Crescide*.
Had the world been coagmented from that supposed fortuitous *jumble*, this hypothesis had been tolerable.

Glaiveille.

How tragedy and comedy embrace,
How farce and epick get a *jumbled* race. Pope.
Persons and humours may be *jumbled* and disguised; but nature, like quicksilver, will never be killed.

I. Estrange.

A verbal concordance leads not always to texts of the same meaning: and one may observe, how apt that is to *jumble* together passages of Scripture, and thereby disturb the true meaning of holy Scripture.

Locke.

Writing is but just like dice,
And lucky mains make people wise;
And *jumbled* words, if fortune throw them,
Shall, well as Dryden, form a poem.

Prior.

Is it not a firmer foundation for tranquillity, to believe that all things were created, and are ordered for the best, than that the universe is mere bungling and blundering; all ill-favoredly cobbled and *jumbled* together by the unguided agitation and rude shuffles of matter?

Bentley.

They will all meet and *jumble* together into a perfect harmony.

Swift.

What *jumble* here is made of ecclesiastical revenues, as if they were all alienated with equal justice.

ld.

JUMBOO, or JUMNOO, an independent district of Hindostan, on the east side of the Aco-sines, or Chunab River, and in about the thirty-third degree of northern latitude. It is governed by a Hindoo chief, and is considered one of the most flourishing of the native districts.

Jumboo, the capital, is situated on the side of a hill, on the banks of a small river which falls into the Chunab, on the high road from Cashmere to Delhi. The traffic of Cashmere, which formerly passed through Lahore, has, since that country has fallen into the hands of the Seiks, been turned into this channel. Several water-mills have been erected in the neighbourhood.

JUMENT, n. s. Fr. *jument*; Lat. *jumentum*. Beast of burden.

Juments, as horses, oxen, and asses, have no eructation, or belching.

Browne's *Vulgar Errors*.

JUMNA, or YUMNA, a river of Hindostan, which has its source in the Himmaleh Mountains. Before it reaches the thirtieth degree of northern latitude, it is between 200 and 300 yards broad; and, on entering the province of Delhi, directs its course, at the distance of from fifty to seventy miles, in a parallel line to that of the Ganges. Passing Delhi and Agra it now falls into the Ganges at Allahabad. Its length may be estimated at 780 miles; but above its junction with the Chumbul, that is, ten miles below the fort of Etayeh, it is fordable from the month of October

till June. In the rainy season, however, it may be navigated by flat-bottomed boats of considerable burden. The country between the Jumna and Ganges is called by the Hindoos Anterbede, and by the Mahomedans, Dooab.

In the year 1815 Mr. James Baillie Fraser explored a portion of that unknown and interesting region, which lies in the bosom of the Himalaya Mountains, and gives birth to several of the greatest rivers in India. He proceeded from Delhi to Naln, and thence through the districts of Sirmoor, Joobul, and Bischur to the Sutledge. Returning to the banks of the Jumna, he penetrated to the very sources of that river, and viewed it collecting from numerous small streams formed by the melting of the snow. From Jumnatree he crossed the snowy range to the Baghirtuce, the greatest and most sacred branch of the Ganges, and, following up the course of this river, he reached Gangootree. Mr. Fraser's observations made at this spot, beyond which he found it impracticable to penetrate, tend to confirm the prevailing belief of the Hindoos, and the accounts of the ancient Shasters, that this magnificent river, equally an object of veneration, and a source of fertility, plenty, and opulence to Hindostan, rises within five miles due east of Gangootree; and that the Ganges finds its origin in a vast basin of snow, confined within the five mighty peaks of Roodroo Himala. This mountain, reckoned the loftiest and largest of the snowy range in this quarter, and probably yielding to none in the whole Himalaya range, is supposed to be the throne or residence of Mahadeo. It has five principal peaks called Roodroo Himala, Burrumpoore, Bissemboore, Ood-gurreekanta, and Sooryarounee. These form a semicircular hollow of a very considerable extent, filled with eternal snow; from the gradual dissolution of which the principal part of the stream is generated. Mr. Fraser's journal embraces a full account of the very singular state of society which is found among the inhabitants of these lofty regions: copious extracts were read in the Royal Society at Edinburgh in 1819.

Captain Hodgson's journey to these regions, however, has thrown still more light on this interesting subject. 'In the maps published ten years ago,' he says (*Asiatic Researches*, vol. xiv.), 'the Jumna is laid down as having a very long course from the latitude of $34^{\circ} 30'$. It was not known, until the year 1814, that the Jumna, properly so called, was a comparatively small river above its junction with the Tonse in the Düm, and I believe the existence of the latter river, though fully treble the size of the Jumna, was unknown to Europeans.'

'The junction of the Tonse and Jumna takes place at the north-west end of the Düm valley, in lat. $30^{\circ} 30'$, where the large river loses its name in that of the small one, and the united stream is called the Jumna. The course of the Jumna from Jumnatri, which is in lat. $30^{\circ} 59'$, is generally south 50° west. It is fordable above the confluence, but the Tonse is not. Not having yet visited the sources of the Tonse, I am not certain whether it rises within the Himalaya, as the Bhágirathi does, or at its south-

west, or exterior base, like the Jumna; but the latter I believe to be the case. I apprehend that three considerable streams, which, like the Jumna, originate from the south faces of the Himalaya, in the districts of Barasa, Leuiowari, and Deodara Kowarra, join to form the Tonse; and it receives a considerable accession of water from the Paber River, which I imagine to be equal in size to any of the three above mentioned feeders. Respecting them, I have at present only native information to guide me, but of the Paber I can speak with more confidence; for when, in June 1816, I penetrated within the Himalaya, by the course of the Setlej, I found that the north bases of many of the snowy peaks, seen from the plains of Hindostan, were washed by that river; its course, in the province of Kunaur, in lat. $31^{\circ} 31'$, and long. $78^{\circ} 18'$, being from east 25° south, to 25° to the north of west. In this position, the Setlej is bounded both to the north and south by high and rugged snowy mountains, from which many torrents descend, and increase its bulk. Leaving the left bank, and bed of the river, I ascended the snowy range, of which it washes the north base, and crossed it on the 21st of June, 1816, at forty minutes past eleven o'clock in the forenoon, during a heavy fall of snow, being the first European who effected a passage over the grand Himalaya ridge in that direction.

'On surmounting the crest of the pass, I found that the Indravati River, which is a principal branch of the Paber, originated from the snows, on which I descended, on the south-west, or higher side of the ridge; and I followed its channel to the place where it joins the Paber, which river must have its beginning, in like manner, on the same side of the ridge, as I was informed by the people of the country it had, and I am nearly certain it is the case; and it is most probable, that all the streams which form the Tonse do, in like manner, descend from the south-west side of the fronting snowy range, the north east base of which is washed by the Setlej, as above mentioned.'

He says afterwards, 'The Camaulda is the largest river which the Jumna receives above the confluence of the Tonse; its course is from north 10° west, down the Ráma Serai district, which is a small valley, and is reported to be in some places a mile wide, but it is now overrun with jungles, full of wild beasts. The Camaulda, now swollen by the rain, is about seventy feet wide, and two feet and a half deep, and very rapid. Immediately on crossing it, the country up the Jumna assumes a more pleasing appearance; the mountains which bound it, though very lofty, do not rise so abruptly, and several small villages are seen on their lower slopes. On the right bank of the river there is a slip of level ground 300 to 500 yards wide. The summits of the mountains are covered by cedars and other pines, and the snow yet lies on them.'

On the 21st of April captain Hodgson went from Cursali to Jumnatri, a distance of two miles seven furlongs. He ascended at Bhairo-Ghati, the steepest ascent he ever met with, by cutting steps in the snow with spades. He then

descended a steep path, by steps cut in the snow, to the Jumna, where a cascade of the stream cuts through the snow, and falls from a rock about fifty feet high. Excepting where the stream is visible for a few yards, through a hole in the snow, the snow-bed is about 100 yards wide, and bounded by high precipices, from which masses of rock of forty feet in length have recently fallen.

'At Jumnotri, the snow which covers and conceals the stream is about sixty yards wide, and is bounded to the right and left by mural precipices of granite; it is forty feet five inches and a half thick, and has fallen from the precipices above. In front, at the distance of about 500 yards, part of the base of the great Jumnotri Mountain rises abruptly, cased in snow and ice, and shutting up and totally terminating the head of this defile, in which the Jumna originates. I was able to measure the thickness of the bed of snow over the stream very exactly, by means of a plumb-line let down through one of the holes in it, which are caused by the steam of a great number of boiling springs which are at the border of the Jumna. The snow is very solid and hard frozen; but we found means to descend through it to the Jumna, by an exceedingly steep and narrow dark hole made by the steam, and witnessed a very extraordinary scene, for which I was indebted to the earliness of the season, and the unusual quantity of snow which has fallen this year. When I got footing at the stream (here only a large pace wide), it was some time before I could discern any thing, on account of the darkness of the place, made more so by the thick steam; but, having some white lights with me, I fired them, and, by their glare was able to see and admire the curious domes of snow over head; these are caused by the hot steam melting the snow over it. Some of these excavations are very spacious, resembling vaulted roofs of marble; and the snow, as it melts, falls in showers, like heavy rain, to the steam which appears to owe its origin in a great measure to these supplies. Having only a short-scaled thermometer with me, I could not ascertain the precise heat of the spring, but it was too hot to keep the finger in it for more than two seconds, and must be near the boiling point. Rice boiled in it but imperfectly. The range of springs is very extensive, but I could not visit them all, as the rest are in dark recesses and snow caverns. The water of them rises up with great ebullition through crevices of the granite rock, and deposits a ferruginous sediment, of which I collected some. It is tasteless, and I did not perceive any peculiar smell. Hot springs are frequent in the Himálaya: perhaps they may be a provision of nature, to ensure a supply of water to the heads of the rivers in the winter season, when the sun can have little or no power of melting the snows in those deep defiles.'

'From near this place, the line of the course of the Jumna is perceptible downward to near Lak'ha Mandel, and is $55^{\circ} 40'$ south-west. From the place called Bhairo Gháti the bed of the river is overlaid with snow to the depth of from fifteen to forty feet, except at one or two places, where it shows itself through deep holes in the snow.'

JUMP, *v. n., v. a., adv., & n. s.* Dut. *gumpen*; Lat. *junctus*. To leap or skip; to leap suddenly; to jolt to a degree; tally, or join: to pass by a leap; to pass over carelessly: exactly, nicely: jump, the act of skipping; a lucky chance. From *jupe*, a waistcoat, a kind of loose or limber stays worn by sickly ladies.

Otherwise one man could not excel another, but all should be either absolutely good, as hitting *jump* that indivisible point or center wherein goodness consisteth; or else missing it, they should be excluded out of the number of well-doers. *Hooker.*

In some sort it jumps with my humour.
Shakspeare.

Do not embrace me till each circumstance
Of place, time, fortune do cohere and *jump*
That I am Viola. *Id. Twelfth Night.*

But since so *jump* upon this bloody question,
You from the Polack wars, and you from England,
Are here arrived. *Id. Hamlet.*

Hercin perchance he *jumps* not with Lipsius.
Hakewill.

Never did trusty squire with knight,
Or knight with squire, e'er *jump* more right;
Their arms and equipage did fit,
As well as virtues, parts, and wit. *Hudibras.*

This shews how perfectly the rump
And commonwealth in nature *jump*. *Id.*

The herd come *jumping* by me,
And fearless, quench their thirst, while I look on,
And take me for their fellow-citizen. *Dryden.*

Good now, how your devotions *jump* with mine. *Id.*

The surest way for a learner is, not to advance by *jumps* and large strides; let that, which he sets himself to learn next, be as nearly conjoined with what he knows already, as is possible. *Locke.*

We see a little, presume a great deal, and so *jump* to the conclusion. *Addison. Spectator.*

So have I seen from Severn's brink,
A flock of geese *jump* down together,
Swim where the bird of Jove would sink,
And swimming never wet a feather. *Swift.*

Candidates petition the emperor to entertain the court with a dance on the rope; and whoever *jumps* the highest succeeds in the office. *Gulliver's Travels.*

I am happier for finding our judgments *jump* in the notion. *Pope to Swift.*

Flings at your head conviction in the lump,
And gains remote conclusions at a *jump*.
Cowper. Conversation.

JUNCATE, *n. s.* } Fr. *juncade*; Ital. *gion-*
JUN'KET, *v. n.* } *cata*. Cheesecake; a kind
of sweetmeat of curds and sugar; any delicacy;
a furtive or private entertainment. It is now
improperly written junket in this sense, which
alone remains much in use: sometimes written
junket, to feast secretly.

Was it a dreame or did I see it playne;
A goodly table of pure ivory
All spread with *juncats*, fit to entertaine
The greatest prince with pompous royaltie.
Spenser's Sonnets.

You know, there wants no *junkets* at the feast. *Shakspeare.*

With stories told of many afeat,
How fairly Mab the *juncates* eat. *Milton.*
The apostle would have no revelling or *junketing*. *South.*

Whatever good bits you can pilfer in the day, save them to *junket* with your fellow servants at night.

Swift.

She taught him, however, very early to inspect the steward's accounts, to dog the butler from the cellar, and to catch the servants at a *junket!*

Johnson. Rambler.

JUN'COUS, *adj.* Lat. *juncceus*. Full of bullrushes.

JUNC'TION, *n. s.* { Lat. *jungo*. Union;

JUNC'TURE, *n. s.* { coalition. Juncture, the line at which things are united; a joint; union; animity; a critical point of time.

Nor are the soberest of them so apt for that devotional compliance and *juncture* of hearts, which I desire to bear in those holy offices to be performed with me.

King Charles.

All other animals have transverse bodies; and, though some do raise themselves upon their hinder legs to an upright posture, yet they cannot endure it long, neither are the figures or *junctures*, or order of their bones, fitted to such a posture.

Hale.

She has made the back-bone of several vertebrae, as being less in danger of breaking than if they were all one entire bone without those grisly *junctures*.

More.

Besides those grosser elements of bodies, salt, sulphur, and mercury, there may be ingredients of a more subtle nature, which, being extremely little, may escape unheeded at the *junctures* of the distillatory vessels, though never so carefully luted.

Boyle.

Upon the *junction* of the two corps, our spies discovered a great cloud of dust.

Addison.

By this profession in that *juncture* of time, they bid farewell to all the pleasures of this life.

Id.

When any law does not conduce to the publick safety, but in some extraordinary *junctures*, the very observation of it would endanger the community, that law ought to be laid asleep.

Id.

Fly, then, and tell him, 'twas my last request
That Zames take my post until the *junction*
So hoped for, yet delayed by Ofratanes,
Satrap of Susa.

Byron. Sardanapalus.

JUNCTURE. See JOINT.

JUNCTURE, in oratory, is a part of composition, particularly recommended by Quintilian, and denotes such an attention to the nature of the vowels, consonants, and syllables, in the connection of words, with regard to their sound, as will render the pronunciation most easy and pleasant, and best promote the harmony of the sentence. Thus the coalition of two vowels, occasioning a hollow and obscure sound, and likewise of some consonants, rendering it harsh and rough, should be avoided: nor should the same syllable be repeated at the beginning and end of words, because the sound becomes hereby harsh and unpleasant. The following verse in Virgil's *Aeneid* is an example:

Arma virumque cano, Trojæ qui primus ab oris.

JUNCUS, the rush, in botany: a genus of the monogynia order and hexandria class of plants. natural order fifth, tripelatoideæ: cor. none: cal. hexaphylous: caps. unilocular. There are many species, which are universally known, being very troublesome weeds, and, difficult to be eradicated.

1. J. aculus, the marine rush, and

2. J. conglomeratus, the round-headed rush, are planted with great care on the banks of the

sea in Holland, to prevent the water from washing away the earth; which would otherwise be removed every tide, if it were not for the roots of those rushes, which fasten very deep in the ground, and mat themselves near the surface, in such a manner as to hold the earth closely together. Therefore, whenever the inhabitants perceive that the roots of these rushes are destroyed, they are very assiduous in repairing them. In summer, when the rushes are fully grown, they are cut and tied up in bundles, which are dried, and afterwards carried into the larger towns and cities, where they are wrought into baskets. These species do not grow so strong in this country as on the Maese, where they sometimes arrive at the height of four feet and upwards.

3. J. effusus, the soft rush. The pith of this species and the conglomeratus is used for wicks to rush-lights.

4. J. odoratus, sweet rush, or camel's hay, is sometimes brought from Turkey and Arabia, tied up in bundles about a foot long. The stalk, in shape and color, somewhat resembles a barley-straw; it is full of fungous pith, like that of our common rushes: the leaves are like those of wheat, and surround the stalk with several coats, as in the reed. The flowers are of a carnation color, striped with a lighter purple. The whole plant, when in perfection, has a hot bitterish, not unpleasant, aromatic taste, and a very fragrant smell: by long keeping it loses greatly its aromatic flavor. Distilled with water, it yields a considerable quantity of essential oil. It was formerly often used in medicine as an aromatic, and in obstructions of the viscera, &c., but is very little employed at present.

JUNE, *n. s.* Fr. *Juin*; Lat. *Junius*. The sixth month from January.

And after her came iollie *June*, arrayd
All in greene leaves, as he a player were,
Yet in his time he wrought as well as playd
That by his plough-yrons mote right well appeare.

Spenser. Faerie Queene.

June is drawn in a mantle of dark green.

Peacham.

JUNE, Lat. *Junius*, is derived by some from Juno. Ovid, in the sixth book of his *Fasti*, makes the goddess say,

Junius à nostro nomine nomen habet.

Others rather derive it à junioribus, this being for young people as the month of May was for old ones:

Junius est juvenum; qui fuit antè senum.

In this month is the summer solstice, and the sun enters Cancer.

JUNGERMANNIA, in botany: a genus of the natural order of algae, in the cryptogamia class of plants. Male flower pedunculated, and naked; the anthera quadrivalved. Female flower is sessile, naked, with roundish seeds. There are numerous species, natives of Britain, growing in woods and shady places, by the sides of ditches, &c. Many of them are beautiful objects for the microscope.

JUNGIA, in botany, a genus of the polygamia segregatæ order, and syngenesia class of plants; the common receptacle is chaffy; the perianth three flowered: the florets tubular

two lipped : the exterior lip ligulate : the interior one bipartite. Species one only : a native of North Granada.

JUGIPORE, a town of Bengal, in the district of Raujeshy, on the eastern bank of the Bhagerutty River. It contains the principal silk establishment of the East India Company, which was erected in 1773, and employs 3000 persons; principally women and children. The Company have endeavoured with great success to introduce here the Italian and particularly the Novi mode of spinning silk.

JUNGHIAH, a town and lordship of Suabia, belonging to the prince of Furstenburg, fourteen miles west of Buchan, and forty south of Stuttgart.

JUNIA LEX SACRATA, a law made by Lucius Junius Brutus, the first tribune of the people, A.U.C. 260, that the persons of the tribunes should be inviolable ; that an appeal might be made from the consuls to the tribunes : and that no senator should exercise the office of a tribune.

JUNIATTA, a river of Pennsylvania, United States, which has its rise in the Alleghany Mountains, and, after a course of 180 miles, unites with the Susquehanna, about fifteen miles above Harrisburg. It is navigable from Bedford to its mouth, or about 150 miles.

JUNIEN (St.), a town in the department of the Upper Vienne, France, between the Vienne and the Glane. It has considerable manufactures of woollen, leather, and hats, and is twenty miles west of Limoges. Population 6000.

JUNIOR, *adj.* Lat. *juniōr*. One younger than another.

According to the nature of men of years, I was repining at the rise of my *juniors*, and unequal distribution of wealth. *Tatler.*

The fools, my *juniors*, by a year,
Are tortured with suspense and fear,
Who wisely thought my age a screen,
When death approached to stand between. *Smyth.*

With mattock in his hand
Digs through whole rows of kindred and acquaintance
By far his *juniors*. *Blair's Grave.*

But with all this, in their aspects—
At least in some, the *juniors* of the number—
A searching eye, an eye like yours, Vincenzo,
Would read the sentence ere it was pronounced.
Byron. Marino Faliero.

JUNIPER, *n.s.* Lat. *juniperus*. A tree.
Sweet is the Rose, but grows upon a brere ;
Sweet is the *Junipeer*, but sharpe his bough ;
Sweet is the Eglantine, but pricketh near ;
And sweet is Moly, but his root is ill ;
So every sweet with sour is tempered still. *Spenser. Sonnets.*

A clyster may be made of the common decoctions, or of mallows, bay, and *juniper* berries, with oil of linseed. *Wiseman.*

JUNIPER TREE, *juniperus*, a genus of the monadelphia order, and monœcia class of plants : natural order fifty-first, conifera. Male AMENTUM a calyx of scales : cor. none : three stamens : female CAL. tripartite : petals three, and as many styles : berry trispermous, and equal by means of three tubercles of the indurated calyx adhering to it.

J. *Bermudiana*, the Bermudian cedar, grows twenty or thirty feet high, has small acute leaves by threes below, the upper ones awl-shaped, acute, and decurrent, by pairs or fours, spreading outward, and diœcious flowers, succeeded by purplish berries. It is a native of Bermudas.

J. *Chinensis*, has leaves decurrent, imbricate, expanding, crowded, the stem leaves threefold, the branch leaves fourfold.

J. *communis*, the common juniper, grows naturally in many parts of Britain upon dry barren commons, where it seldom rises above the height of a low shrub. Those who have been used to see it in its wild state, on sandy barren commons, &c., will have little inducement to plant it ; as there they will see it procumbent, seldom showing a tendency to aspire : but, when planted in a good soil, it will rise to the height of fifteen or sixteen feet, and produce numerous branches from the bottom to the top, forming a well looking bushy plant. These branches are exceedingly tough, and covered with a smooth bark of a reddish color, having a tinge of purple. The leaves are narrow and sharp-pointed, growing by threes on the branches ; their upper surface has a grayish streak down the middle ; but the under one is of a fine green color. The flowers are small, and of a yellowish color. They are succeeded by the berries, which are of a bluish color when ripe. Of this species there is a variety called Swedish juniper, which grows ten or twelve feet high, very branched the whole length, with the branches growing erect. But Mr. Miller says, the Swedish juniper is a distinct species. A prostrate but very dwarfish variety is mentioned by Lightfoot, under the name of dwarf Alpine juniper. It is frequently found in the Highland hills, and has broader and thicker leaves than the former ; the berries are also larger, and more oval than spherical.

J. *lycia*, lycian cedar, or olibanum tree, grows twenty feet high, branching erect ; garnished with small obtuse oval leaves, every where imbricated ; having diœcious flowers succeeded by large oval brown berries. It is a native of Spain and Italy.

J. *oxycedrus*, the Spanish juniper, rises from ten to fifteen feet high, closely branched from the bottom to top ; having short, awl-shaped, spreading leaves by threes, and small diœcious flowers, succeeded by large reddish-brown berries.

J. the Phenician cedar, grows about twenty feet high, branching pyramidal ; adorned with ternate and imbricated obtuse leaves ; and diœcious flowers, succeeded by small yellowish berries. It is a native of Portugal.

J. *sabina*, or savin tree ; of which there are the following varieties, viz. spreading, upright, and variegated savin. The first grows three or four feet high, with horizontal and very spreading branches ; with short, pointed, decurrent, erect, opposite leaves ; and diœcious flowers, succeeded by bluish berries, but very rarely producing either flowers or fruit. The second grows eight or ten feet high, with upright branches, dark-green leaves like the former, and diœcious flowers, succeeded by plenty of berries. The third has the ends of many of the shoots and young branches variegated with white, and the

ieaves finely striped ; so that it makes a beautiful appearance.

J. thurifera, or blue-berried Spanish juniper, grows twenty feet high or more, branching in a conic form, with acute imbricated leaves, growing by fours, and small dioecious flowers, succeeded by large blue berries.

J. Virginiana, the Virginia cedar, grows thirty or forty feet high, branching from bottom to top in a conic manner, small leaves by threes adhering at their base ; the younger ones imbricated, and the old ones spreading, with dioecious flowers, succeeded by small blue berries.

All the junipers are propagated by seeds, and the savins by layers and cuttings ; but these last may also be raised from the berries, if they can be procured. They may all be sown in beds of common light earth ; except the cedar of Bermudas, which must be sown in pots for shelter in winter. When the hardy kinds have had two or three years' growth, in the seed-bed, they may be planted out in autumn, or in spring, in nursery rows two feet asunder, to remain till of due size for final transplantation into the shrubbery. The Bermudas cedar must be sheltered under a frame for the first year or two ; when they must be separated into small pots, to be sheltered also in winter for three or four years, till they have acquired some size and strength ; then turned out into pots in the full ground, where they are to remain in a warm situation ; though a shelter of mats for the first winter or two during hard frosts will be of great service. The season for transplanting all the species is either in autumn, October, or November, or in March, and early in April.

Juniper berries have a strong, not disagreeable smell ; and a warm, pungent, sweet taste ; which, if they are long chewed, or previously well bruised, is followed by a bitter one. The fresh berries yield, on expression, a rich, sweet, honey-like, aromatic juice ; if previously pounded, so as to break the seeds, the juice proves tart and bitter.—These berries are useful carminatives and stomachics ; for these purposes, a spirituous water and essential oil are prepared from them, and they are also ingredients in various medicines. The liquor remaining after the distillation of the oil, passed through a strainer, and gently exhaled to the consistence of a rob, proves likewise a medicine of great utility, and in many cases is perhaps preferable to the oil or the berry itself. This rob is of a dark brownish-yellow color, a balsamic sweet taste, with a little of the bitter. But one of the best forms under which they can be used is that of a simple watery infusion, which, with the addition of a little gin, is very useful for hydroptic patients. An infusion of the tops has also been advantageously employed in the same manner. The wood when burnt emits a fragrant odor like incense. It is of a reddish color, very hard and durable ; and, when large enough, is used in marquetry and veneering, and in making cups, cabinets, &c. The oil of juniper mixed with that of nuts makes an excellent varnish for pictures, wood-work, and preserving iron from rusting. The resin, powdered and rubbed into paper, prevents the ink from sinking through it, for which it is frequently used under

the name of pounce.—The charcoal made from this wood endures longer than any other, insomuch that live embers are said to have been found in the ashes after being a year covered. Hence the Scriptural expression for a durable fire, ‘coals of juniper.’

JUNIUS, the family surname of several eminent Romans, remarkable for their attachment to liberty. See **BRUTUS**, and **ROME**.

JUNIUS (Adrian), one of the most learned men of his age, was born at Hoorn in Holland, in 1511. He travelled into all parts of Europe, and practised physic with reputation in England ; where, among other works, he composed a Greek and Latin Lexicon ; an Epithalamium on the marriage of queen Mary I. with Philip II. of Spain ; and Animadversa et de Coma Communitarius, which is the most applauded of all his works. He died in 1575.

JUNIUS (Francis), professor of divinity at Leyden, was born at Bourges in 1545, of a noble family, and studied at Lyons, under Bartholomew Aneau, principal of the college. He was employed in publick affairs by Henry IV., and at last was invited to Leyden to be professor of divinity, which employment he discharged with honor, till he died of the plague, in 1602. Du Pin says, he was a learned and judicious critic. He wrote, in conjunction with Emmanuel Tremellius, a Latin version of the Hebrew text of the Bible. He also published Commentaries on a great part of the Holy Scriptures ; and many other works, all in Latin.

JUNIUS (Francis), or Francis du Jon, the son of the professor, was born at Heidelberg in 1589. He came to England in 1620, and lived thirty years in the earl of Arundel's family. He was greatly esteemed for his profound erudition. In 1676 he went to Windsor, to visit Vossius, at whose house he died in 1677. The University of Oxford, to which he bequeathed his MSS., erected a handsome monument to his memory. He wrote, 1. *De Picturâ Veterum*, which is admired ; the best edition is that of Rotterdam in 1694. He published the same work at London in English. 2. *An Explication of the old Gothic MS.* called the silver MS. This was published with notes by Thomas Mareschal. 3. A large Commentary on the Harmony of the four Gospels, still in MS. 4. *A Glossary in five languages*, in which he explains the origin of the Northern languages ; published at Oxford in 1745, in folio, by Mr. Edward Lee.

JUNIUS. The letters of a distinguished writer who assumed this appellation, in the middle of the last century, have become classical authority in our own language ; and will long be connected with the history of the early part of the reign of George III. This is doubtless owing, for the greater part, to their intrinsic excellence, especially in point of style ; but the well sustained shadow under which he concealed himself—the truth of his motto *Stat nominis umbra*—has also largely contributed to keep alive the public interest in his works. To Mr. Woodfall, the son of his original printer, we were a few years ago indebted for a new and valuable edition of these celebrated letters, accompanied with some few private communications

of the author to his father. At the same period appeared a new, and in the judgment of some able critics (at the head of whom stood the Edinburgh Reviewers), a more plausible attempt to identify the author or rather authors of the whole. They have been attributed it is well known to lord Chatham, Burke, Mr. secretary Hamilton, Boyd, Almon, and various inferior writers; this writer attempts to solve 'this most important secret of our times,' by ascribing them to Dr. Francis, the elegant translator of Horace, and his son Sir Philip Francis.

He first considers the circumstances of time and place, and shows that Dr. Francis and his son were in the metropolis or its immediate neighbourhood during the period in which the letters were written, and in situations favorable for obtaining the information which Junius was so remarkable for possessing. The miscellaneous letters of Junius, according to Mr. Woodfall's last edition, extend from April 28th, 1767, to May 12th, 1772; the letters signed Junius, from January 21st, 1769, to January 21st, 1772; the private letters to Mr. Wilkes, from August 21st, to November 9th, 1771: and the private letters to Woodfall commence on April 20th, 1769, and close on January 1773.

Thus the whole of the letters were written between the dates of April 28th, 1767, and January 19th 1773. Now Dr. Francis died at Bath on the 5th of March, 1773. For several years previous to his death he had resided in or near London. His son was born about the year 1748. In 1773 he was appointed one of the Commissioners for the government of India. He sailed from England in the spring of 1774.

'There is nothing, therefore,' says this writer, 'in the time when these letters were written that opposes the opinion we have expressed. Dr. Francis lived three months after the date of the last private communication of Junius, and ten months after the appearance of his last miscellaneous letter. The latest of the acknowledged letters of Junius was published fourteen months before his death. Sir Philip Francis did not leave England until a twelvemonth after the date of the last communication, of any description, that can be traced to Junius.'

'Had Junius written after the death of Dr. Francis, and the departure of Sir Philip, there would be an end of our present enquiry. Or if Sir Philip had continued in England, and Dr. Francis had lived any considerable time after Junius had ceased to write, appearances would not have been so strongly in our favor. Under all the circumstances, we may certainly consider the time and place as affording some proofs of the correctness of our suggestion.'

Mr. Woodfall's Preliminary Essay certainly confirms this reasoning. 'From January, 1769, to January 1772, he (Junius) uniformly,' he says, 'resided in London, or its immediate vicinity, and never quitted his stated habitation for a longer period than a few weeks.'

Lord Barrington, Sir Philip's patron, was appointed secretary at war in 1765. As Sir Philip was introduced into the war-office at an early period of life, it probably took place soon after the appointment of his patron, at which time he

was seventeen years of age. He continued in this department until he was expelled by lord Barrington in March 1772.—*Junius*, v. iii. p. 445.

There is reason then to conclude, that so long as Junius was known to be confined to London, or its immediate vicinity, Mr. Philip Francis held a situation at the war-office, which necessarily required his constant residence in town. When the latter was released from this constraint, the letters of Junius immediately evince that he himself indulged in a correspondent relaxation. So completely, indeed, does the parallel hold between the situation and peculiar circumstances of Junius and Mr. Philip Francis, as our author contends, that, when the latter finally quitted the war-office, the former entirely gave up his political lucubrations.

The connexion of Sir Philip with the war-office affords, it is alleged, still stronger evidence of its truth. Junius was distinguished for his particular knowledge of the minor concerns of the army. Malone mentions as a reason why Mr. secretary Hamilton could not have been the author of the letters, that he had none of that minute commissarial knowledge of petty military matters which is displayed in some of the earlier papers of Junius.—*Preliminary Essay*, p. 117.

'These expressions very happily designate that species of knowledge which a chief clerk in the war-office would naturally acquire. Let us see how this applies to the letters of Junius. In his first letter, Junius animadverts on the conduct of the commander-in-chief, for neglecting the merit and services of the rest of the army to heap promotions upon his favorites and dependents.'—'If the discipline of the army be in any degree preserved, what thanks, he asks, are due to a man, whose cares, notoriously confined to filling up vacancies, have degraded the office of commander-in-chief to a broker of commissions?'

In reply to Sir William Draper's vindication of lord Granby, the second letter of Junius contains the following passages:—'You say he has acquired nothing but honor in the field. Is the ordnance nothing? Are the blues nothing? Is the command of the army, with all the patronage annexed to it, nothing? Where he got these nothings I know not; but you at least ought to have told us when he deserved them,' &c.

'The last charge of the neglect of the army, is indeed the most material of all. I am sorry to tell you, Sir William, that in this article your first fact is false: and, as there is nothing more painful to me than to give a direct contradiction to a gentleman of your appearance, I could wish that, in your future publications, you would pay a greater attention to the truth of your premises, before you suffer your genius to hurry you to a conclusion. Lord Ligonier did not deliver the army (which you, in classical language, are pleased to call a palladium) into lord Granby's hands. It was taken from him much against his inclination, some two or three years before lord Granby was commander in chief. As to the state of the army, I should be glad to know where you have received your intelligence. Was it in the rooms at Bath, or at your retreat at Clifton?'

The other letters of Junius to Sir William Draper display many more proofs of this minute commissarial knowledge.

On the subject of the rescue of major-general Gansel, Junius displays the same minute knowledge of military matters: and, indeed, details the affair with a minuteness that proves he was an eye-witness of it. Every little circumstance is marked in his account with the precision of a picture painted on the spot.

We cannot follow this ingenious writer far into these details; but are struck with those relating to the appointment of colonel Luttrell to the adjutant-generalship of the army of Ireland.

'This infamous transaction,' he said, 'ought to be explained to the public. Colonel Gisborne was quarter-master-general in Ireland. Lord Townshend persuades him to resign to a Scotch officer, one Fraser, and gives him the government of Kinsale. Colonel Cunningham was adjutant-general in Ireland. Lord Townshend offers him a pension to induce him to resign to Luttrell. Cunningham treats the offer with contempt. What's to be done? poor Gisborne must move once more. He accepts of a pension of £500 a year, until a government of greater value shall become vacant. Colonel Cunningham is made governor of Kinsale, and Luttrell at last, for whom the whole machinery is put in motion, becomes adjutant-general, and, in effect, takes the command of the army in Ireland.' *Junius*, vol. ii. p. 156.

But Junius, though he had obtained a knowledge of this appointment before it had obtained the royal sanction, prematurely anticipated colonel Luttrell's acceptance of it, and was a few days after compelled to announce that the minister had 'meanly rescinded this detestable promotion.' Yet he is still determined the design shall not be forgotten. 'As very few forms concurred to this appointment; he says, 'except private commissions to a lord-lieutenant, we shall not be surprised at that effrontery which may hereafter deny the whole transaction; it is not, however, lost in ignorance, because the royal fiat had purposely delayed its progress through the offices of the secretaries of state. It never, perhaps, was intended that this circumstance should have been made public, till the destruction of our rights had been at least more easily to be accomplished than it is at present.' Vol. ii. p. 158.

But he relies mainly for proof of its connexion of Junius with the war-office, and of his identity or connexion with Sir Philip Francis on the letters addressed to lord Barrington. In one of them he says, 'Let us suppose a case, which every man acquainted with the war-office will admit to be very probable.' In the second, 'By garbling and new modelling the war-office, you think you have reduced the army to subjection.—Walk in, Gentlemen, business done by Chamier and Co.—To make your office complete, you want nothing now but a paper lantern at the door, and the scheme of a lottery pasted upon the window. With all your folly and obstinacy, I am at a loss to conceive what countenance you assumed, when you told your royal master that you had taken a little Frenchified broker from Change Alley, to intrust with the management

of all the affairs of his army. Did the following dialogue leave no impression upon your disordered imagination? You know where it passed.

'K. Pray, my lord, whom have you appointed to succeed Mr. D'Oyly?

'B. Please your M—, I believe I have made a choice that will be highly acceptable to the public and to the army.

'K. Who is it?

'C. Sire, il s'appelle Ragosin. Born and educated in Change Alley, he glories in the name of broker: and, to say nothing of lord Sandwich's friendship, I can assure your M— he has always kept the best company at Jonathan's.

'K. My lord, I never interfere in these matters; but I cannot help telling your lordship, that you might have consulted my honor and the credit of my army a little better. Your appointment of so mean a person, though he may be a very honest man in the mystery he was bred to, casts a reflection upon me, and is an insult to the army. At all events, I desire it may be understood that I have no concern in this ill-judged, indecent measure, and that I do not approve of it.'

'I suppose, my lord, you thought this conversation might be sunk upon the public. It does honor to his majesty, and therefore you concealed it.—In my next I propose to show what a faithful friend you have been to the army, particularly to old worn-out officers.' *Junius*, vol. iii. p. 430, &c.

Another 'Scene. The war-office,' adorns his third letter. 'The writer had threatened lord Barrington with sixteen letters (*Junius* v. iii. p. 427) being, however, dismissed at the period of the date of his fourth, this concludes the series; and now he says, that lord Barrington expelled Mr. Francis, 'because his honor and integrity were check upon his lordship's dark proceedings; because men who do their duty with credit and ability are not proper instruments for lord Barrington to work with; they cannot be brought to connive at his jobs and underhand dealings; and, among other reasons, because lord Barrington feels himself uneasy while men with such qualifications are about him.'

It is still, however, the opinion of this writer, that these letters were concocted jointly with Dr. Francis, whose Hibernicisms he traces; his intimacy with lord Holland, and his remarkable tenderness towards that nobleman's reputation: he also ingeniously accounts for Junius's dread of Garrick's enquiries, by showing that Dr. Francis and he were in the habit of meeting at the houses of lord Holland and Foote. Under the head of internal evidence he then ably considers the peculiar expressions and style of composition, and secondly, the general opinions and principles of the writers. But we have already penetrated these arcana sufficiently to excite the attention of such of our readers as feel interested in the question, and must refer for their more complete satisfaction to the work (of, we believe, Mr. Taylor) itself. It is at least the best of all the guesses at Junius.

JUNK, n.s. Probably an Indian word. A small ship of China.

America, which have now but *junks* and canoes, abounded then in tall ships. *Bacon's New Atlantis.*

Pieces of old cable.

JUNKSEYLON, a considerable island near the western coast of the Malay peninsula, in the south-east portion of the bay of Bengal. It is separated from the main land by a shallow channel, of about a mile in breadth : the centre of the island being in 8° N. lat. It is fifty-four miles long, by fifteen broad. The harbour, Popra, has a mud bar, which however may be passed in spring tides by vessels drawing twenty feet. Here are some valuable tin mines. The inhabitants, a mixture of Chinese, Malays, Siamese, and Birmans, are subject to the latter, and are governed by a mayoone, sent from Ummepoora. This island was conquered from the Siamese in 1810.

JUNO, in pagan mythology, the daughter of Saturn and Rhea, the sister and wife of Jupiter, and the goddess of kingdoms and riches. She was styled the queen of heaven, and presided over marriage and child-birth. She married Jupiter; but, according to Homer, that god was sometimes obliged to use all his authority to keep her in subjection ; and, on her entering into a conspiracy against him, he punished her by suspending her in the air with two anvils fastened to her feet, and golden manacles on her hands, while all the other deities looked on without being able to help her. Being jealous, she often interrupted her husband in his amours ; and punished with unrelenting fury Europa, Semele, Io, Latona, and others of his mistresses. Jupiter himself having conceived Minerva, without any commerce with a female, Juno, in imitation, conceived Vulcan by the wind, Mars by touching a flower pointed out to her by Flora, and Hebe by eating lettuces. Juno, as the queen of heaven, preserved great state ; her usual attendants were Terror and Boldness, Castor, Pollux, and fourteen nymphs ; but her most faithful attendant was the beautiful Iris. Homer describes her in a chariot adorned with precious stones, the wheels of which were of ebony, and which was drawn by horses with reins of gold. But she is more commonly painted drawn by peacocks. She was represented in her temple at Corinth, seated on a throne, with a crown on her head, a pomegranate in one hand, and in the other a sceptre with a cuckoo on its top. This statue was of gold and ivory. Some suppose that Juno signifies the air ; others that she was the Egyptian Isis.

JUNONALIA, a festival observed by the Romans in honor of Juno. It was instituted on account of certain prodigies that happened in Italy, and was celebrated by matrons. In the solemnity two white cows were led from the temple of Apollo in the city through the gate called Carmentalis, and two images of Juno, made of cypress, were carried in procession. Then marched twenty-seven girls, habited in long robes, singing a hymn to the goddess ; then came the Decemviri, crowned with laurel, in vestments edged with purple. This pompous train, going through the Vicus Jugarius, danced in the great field of Rome ; thence they proceeded through the Forum Boarium to the temple of Juno, where the victims were sacrificed by the Decemviri, and the

cypress images were left standing. This festival is fully described by Livy, lib. 7.

JUNOT (Andoche), a modern French general of eminence, was born in low life, in 1771, and entered at the age of twenty into the army. When only a lieutenant he was noticed by Buonaparte ; who placed him on his staff, and he became a great favorite of that general in his Egyptian expedition. He was made lieutenant-general, in 1806 governor of Paris, and colonel-general of hussars. The next year he was sent as ambassador to Lisbon, with orders to take possession of Portugal. Here he remained two years, and was further honored with the title of duke of Abrantes. The battle of Vimiera, in which he was opposed to Sir A. Wellesley, put an end to his authority ; but Buonaparte afterwards appointed him captain-general and governor of the Illyrian provinces. He died in 1813, having collected a valuable library.

JUNTO, n. s. Ital.; Lat. *junctus*. A cabal ; a number of men combined in any secret design.

Would men have spent toilsome days and watchful nights in the laborious quest of knowledge preparative to this work, at length come and dance attendance for approbation upon a *junta* of petty tyrants, acted by party and prejudice, who denied fitness from learning, and grace from morality ?

South.

From this time began an intrigue between his majesty and a *junta* of ministers, which had like to have ended in my destruction. *Gulliver's Travels.*

Unblest by nature, government a league
Becomes a circling *junto* of the great,
To rob by law. *Thomson's Liberty.*

JUNTO, in matters of government, denotes a select council for taking cognizance of affairs of great consequence, which require secrecy. In Spain and Portugal it signifies much the same as convention, assembly, or board among us ; thus they have the junto of the three estates, of commerce, of tobacco, &c. See BOARD.

IVORY, n. s. Fr. *ivoire*; Lat. *ebur*.

The ches was all of *ivory*, the meyne fresh and new,
Upulshed and ypliked of white asure and blew. *Chaucer. The Merchant's Second Tale.*

Hire throte, as I have nowe memoire,
Seemed as a round tour of *ivoire*,
Of gode gretnesse, and not to grete.

Id. Boke of the Duchesse.

There is more difference between thy flesh and hers, than between jet and *ivory*. *Shakspeare.*

Draw Erato with a sweet and lovely countenance, bearing a heart with an *ivory* key. *Peacham.*

Upon her forehead thousand cheerful graces,
Seated on thrones of spotless *ivory* ;
There gentle Love his armed hand unbrares ;
His bow unbent disclaims all tyranny. *Fletcher. Purple Island.*

From their *ivory* port the cherubim
Forth issued. *Milton.*

Two gates the silent house of sleep adorn,
Of polished *ivory* this, that of transparent horn :
True visions through transparent horn arise,
Through polished *ivory* pass deluding lies. *Dryden.*

Ivory is a hard, solid, and firm substance, of a fine white colour : it is the dens exertus of the elephant,

who carries on each side of his jaws a tooth of six or seven feet in length; the two sometimes weighing three hundred and thirty pounds; these *ivory* tusks are hollow from the base to a certain height, and the cavity is filled with a compact medullary substance.

Hill.

Necks whiter than the *ivory* arm bestowed
By Jove on Pelops, or the milky road.

Couper. Elegy.

IVORY. The tusk, or tooth of defence of the male elephant. It is an intermediate substance between bone and horn, not capable of being softened by fire, nor altogether so hard and brittle as bone. Sometimes it grows to an enormous size, so as to weigh nearly 200 pounds.

The entire tooth is of a yellowish, brownish, and sometimes a dark brown color on the outside; internally white, hollow towards the root, and, so far as was inserted into the jaw, of a blackish-brown color. The finest, whitest, smoothest, and most compact ivory comes from the island of Ceylon. The grand consumption of this commodity is for making ornamental utensils, mathematical instruments, cases, boxes, balls, combs, dice, and an infinity of toys. The workmen have methods also of tinging it of a variety of colors. Merat Guillot obtained from 100 parts of ivory 24 gelatin, 64 phosphate of lime, and 0·1 carbonate of lime. The coal of ivory is used in the arts under the denomination of ivory-black. Particular vessels are used in the manufactory of this pigment, for the purpose of rendering it perfectly black. Some travellers speak of the tooth of the sea-horse as an excellent ivory; but it is too hard to be sawed or wrought like ivory. It is used for making artificial teeth.

IVORY COAST, a country of Africa, in Guinea, on the coast of the Atlantic, which, along with the **Grain Coast**, extends about 500 miles. See **GUINEA**, and **MALAGUETTA**. It is seated between Cape Apollonia and Cape Palmas, and contains several towns. The interior part of the country is little known; the natives not allowing the Europeans to build settlements among them and hardly even to trade with them, except by means of the coast negroes, and even then with the most circumspect caution, for which they have but too just cause. The chief articles of commerce are gold, ivory, and slaves; the former in the greatest plenty. The soil is in general fertile, producing abundance of rice and roots; indigo and cotton thrive without cultivation, and tobacco would be excellent if carefully manufactured: they have fish in plenty: their flocks greatly increase; and their trees are loaded with fruit. They make a cotton cloth, which sells well on the coast. In a word, the country is rich, and the commerce advantageous, and might be greatly augmented by such as would cultivate the friendship of the natives. These are represented by interested writers as a rude, treacherous people; but authors of credit give them a very different character, describing them as sensible, courteous, and the fairest traders of the coast of Guinea, &c. They are said to be averse to drinking to excess, and such as do so are severely punished. Though they are naturally inclined to be kind to strangers, with whom they are fond of trading, yet the frequent injuries done

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them by Europeans have occasioned their being suspicious and shy; and have even made them sometimes treat strangers ill, who have attempted to trade with them. The trade is carried on by signals from the ships, on the appearance of which the natives usually come on board in their canoes, bringing their gold dust, ivory, &c., which has given opportunity to some villainous Europeans to carry them off with their effects, or retain them on board till a ransom was paid. The mistrust at one time was so great, that it is very difficult to prevail on them to come on board. Great Britain is now happily relieved from the great odium of stimulating and rewarding this cruel conduct: but the slave trade is yet surreptitiously carried on here to a great extent.

JUPITER, the sovereign deity of the ancient Pagans. The theologists, according to Cicero, reckoned up three Jupiters; the first and second of whom were born in Arcadia; of these two, the one sprang from *Aether*, the other from *Cœlus*. The third Jupiter was the son of *Saturn*, and born in Crete, where they pretended to show his sepulchre. Cicero in other places speaks of several Jupiters who reigned in different countries. The Jupiter, by whom the poets and divines understand the supreme god, was the son of *Saturn*, king of Crete. He would have been devoured by his father as soon as born, had not his mother *Rhea* substituted a stone instead of the child, which *Saturn* immediately swallowed. *Saturn* took this method to destroy all his male children, because it had been foretold by *Cœlus* and *Terra*, that one of his sons should deprive him of his kingdom. Jupiter, being thus saved from his father, was brought up by the Curetes in a den on Mount *Ida*. Virgil tells us that he was fed by the bees; out of gratitude for which he changed their color from that of iron to gold. Some say, that his nurses were *Amalthea* and *Melissa*, who gave him goat's milk and honey; and others, that *Amalthea* was the name of the goat which nourished him, and which, as a reward for her great services, was changed into a constellation. According to others, he was fed by wild pigeons, who brought him ambrosia from *Oceanus*; and by an eagle, who carried nectar in his beak from a steep rock; for which he rewarded the former, by making them the foretellers of winter and summer; and the latter by giving him immortality, and making him his thunder-bearer. When grown up, he drove his father out of heaven, and divided the empire of the world with his brothers. For himself, he had heaven and earth; *Neptune* had the sea and waters; and *Pluto* hell. The Titans attempted to dethrone Jupiter, as he had done his father. These Titans were giants, the sons of *Titan* and *Terra*. They declared war against Jupiter, and heaped mountains upon mountains, in order to scale heaven: but their efforts were unsuccessful. Jupiter overthrew them with his thunder, and shut them up under the waters and mountains, from which they were not able to get out. Jupiter had several wives: the first of whom, named *Metis*, he is said to have devoured when big with child, by which he himself became pregnant; and *Minerva* issued out of his head, com-

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pletely armed and fully grown. His second was Themis; the name of his third is not known; his fourth was the celebrated Juno, whom he deceived under the form of a cuckoo, which, to shun the violence of the storm, fled for shelter to her lap. He was the father of the Muses and Graces; and had a prodigious number of children by his mistresses. He metamorphosised himself into a satyr to enjoy Antiope; into a bull, to carry off Europa; into a swan, to abuse Leda; a shower of gold, to corrupt Danae; and into several other forms to gratify his passions. He had Bacchus by Seinele, Diana and Apollo by Latona, Mercury by Maia, and Hercules by Alcmena, &c. The wiser part of the heathens believed that there was but one supreme God; but it is certain that the great body of the people believed in a plurality of gods, endued with different powers and attributes, and all of them influenced by human passions and vices. It is in vain to attempt to exculpate them from this folly. The whole history of ancient Greece, Rome, Egypt, &c., with their routine of superstitious ceremonies, prove that they believed all the ridiculous fables of the mythology. They even used different representations of the same deity, and, if they did not consider them as so many different persons, at least regarded each of them in different views: e. g. The Jupiter that showered down blessings was called the Kind Jupiter; and, when punishing, the Terrible Jupiter. There was not only one Jupiter for Europe and another for Africa; but in Europe there was one Jupiter who was the particular friend of the Athenians, and another who was the special protector of the Romans: nay, there was scarcely a town in Italy, that had not a Jupiter of its own; and the Jupiter of Terracina, or Jupiter Anxur, represented in medals as young and beardless, with rays round his head, more resembled Apollo than the great Jupiter of the capitol. In this way Jupiter at length had temples and different characters almost every where; in Carthage he was called Ammon; in Egypt, Serapis; at Athens, the great Jupiter was the Olympian Jupiter; and at Rome, the greatest Jupiter was the Capitoline Jupiter, who was the guardian and benefactor of the Romans, and whom they called Jupiter optimus maximus. This Jupiter was represented in his chief temple, on the Capitoline hill, as sitting on a curule chair, with the fulmen, i. e. thunder, or rather lightning, in one hand, and a sceptre in the other. This fulmen in the figures of the old artists was always adapted to the character under which they were to represent Jupiter. If his appearance was to be mild and calm, they gave him the conic fulmen, or bundle of flames wreathed closely together, held down in his hand: when punishing, he held up the same figure, with two transverse darts of lightning, sometimes with wings added to each side of it, to denote its swiftness; this was called by the poets the three-forked bolt of Jove: and, when he was going to do some exemplary execution, they put in his hand a handful of flames, all let loose in their utmost fury; and sometimes filled both his hands with flames. The superiority of Jupiter was principally manifested in that air of majesty which the ancient

artists endeavoured to express in his countenance: particular attention was paid to the head of hair, the eye-brows, and the beard. There are several heads of the mild Jupiter on ancient seals; where his face has a mixture of dignity and ease in it, admirably described by Virgil, *AEn.* i. v. 256. The statues of the Terrible Jupiter were generally of black marble, as those of the former were of white: the one sitting with an air of tranquillity; the other standing, more or less disturbed. The face of the one is pacific and serene; of the other, angry and clouded. On the heads of the one the hair is regular and composed; in the other it is so discomposed, that it falls half way down the forehead. The face of the Jupiter Tonans resembles that of the Terrible Jupiter; he is represented on gems and medals as holding up the triple bolt in his right hand, and standing in a chariot, which seems to be whirled on impetuously by four horses. Thus he is also described by the poets. Ovid. *Deian.* Here. v. 28. Horace, lib. i. od. 4, v. 8. Jupiter, as the intelligence presiding over a single planet, is represented only in a chariot and pair: on all other occasions, if represented in a chariot, he is always drawn by four horses. Jupiter was the chief ruler of the air, and directed the rains, the thunders, and the lightnings. As the dispenser of rain, he was called Jupiter Pluvius; and was exhibited seated in the clouds, holding up his right hand, or extending his arms almost in a straight line each way, and pouring a stream of hail and rain from his right hand upon the earth; whilst the fulmen is held down in his left. The wings that are given him relate to his character of presiding over the air: his hair and beard in the Antonine pillar are all spread down by the rain, which descends in a sheet from him, and falls for the refreshment of the Romans; whilst their enemies are represented as struck with the lightnings, and lying dead at their feet. Some consider a part of the fable of Jupiter to include the history of Noah and his three sons; and that Saturn is Noah, who saw all mankind perish in the waters of the deluge; and who, in some sort, swallowed them up, by not receiving them into the ark: Jupiter is Ham; Neptune, Japheth; and Shein, Pluto. The Titans, it is thought, represent the old giants, or first tyrants, who built the tower of Babel, and whose pride and presumption God had confounded, by changing their language, and pouring out the spirit of discord and division among them. The name of Jupiter, or Jovis Pater, is thought to be derived from Jehovah, pronounced with the Latin termination Jovis instead of Jova; and in medals we meet with Jovis in the nominative, as well as oblique cases: for example, Jovis custos, Jovis propugnator, Jovis stator. To the name Jovis was added pater; and afterwards, instead of Jovis pater, Jupiter was used by abbreviation. The name Jupiter was not known to the Hebrews till the reign of Alexander the Great. Antiochus Epiphanes commanded the idol of Jupiter Olympius to be placed in the temple at Jerusalem; and that of Jupiter, the defender of strangers, in the temple on mount Gerizim. 2 Macc. v. 2.

JUPITER, 4, in astronomy, one of the superior

planets, and remarkable as being the brightest of them all, except Venus. Jupiter is situated between Mars and Saturn, being the fifth in order of the primary planets from the sun. His diameter is 89,170 miles. He turns round his axis in nine hours and fifty-six minutes; and performs his periodical revolution in eleven years, 315 days, fourteen hours, and thirty nine minutes, at the distance of 490 millions of miles from the sun. The figure of Jupiter is evidently an oblate spheroid, the equatorial being to the polar diameter as fourteen to thirteen. This result was obtained from the accurate observations of Dr. Herschel; and it is a remarkable coincidence between theory and observation, that, from the influence of the equatorial parts of Jupiter upon the motion of the nodes of his satellites, La Place has found the proportion between his equatorial and polar diameters to be as 10,000,000 to 9,286,992; a result which differs only a little from the ratio of fourteen to thirteen, and which should be regarded as the more accurate of the two. According to Cassini, the difference of Jupiter's diameters is $\frac{1}{15}$; Pound made it $\frac{1}{15.37}$; Short $\frac{1}{15}$; and Newton $\frac{1}{15}$. When we look at Jupiter through a good telescope we perceive several belts or bands extending across his disc, in lines parallel to his equator. These appearances were first observed by two Jesuits, Zuppi and Bartoli. They were afterwards examined in 1633, by Fontana, Rheita, Riccioli, Grimaldi, and Campani; the latter of whom, on the 1st of July 1664, perceived four dark belts, and two white ones. These belts are variable, both in number, distance, and position. Sometimes seven or eight belts have been observed; and, on the 28th of May, 1780, Dr. Herschel perceived the whole disc of Jupiter covered with small curved belts, or rather lines, that were not continuous across his disc. The parallel belts, however, are most common, and in clear weather may be seen by a good achromatic telescope, with a magnifying power of forty. See ASTRONOMY.

JUP'PON, n. s. Fr. *juppon*. A short close coat. Some wore a breast-plate and a light *juppon*. Their horses clothed with rich caparison. Dryden.

JURA, one of the Western Islands of Scotland, lying opposite to Knapdale in Argyleshire, is supposed to be about thirty miles long and seven broad. The name is derived by some from Gael. *Juar*, i. e. yew, as abounding in yew trees: but Buchanan, with more probability, derives it from the Gothic, *Dera*, or *Gacl*. *Diura*, a deer, as it formerly abounded with these animals, and there are still a few on the island. It is the most rugged of all the Hebrides; and is composed chiefly of vast mountains, naked, and incapable of cultivation. Some on the south and west sides only are improvable, and in good seasons as much barley and oats are raised as will maintain the inhabitants. Barley produces four or five fold. Sloes are the only fruits of the island. An acid for punch is here made from the berries of the mountain ash; and a kind of spirit is also distilled from them. Necessity has instructed the inhabitants in the use of native dyes. Thus the juice of the tops of heath boiled supplies them with a yellow; the roots of the white water lily

with a dark brown; those of the yellow water iris with a black, and the galum verum, rue of the islanders, with a very fine red, not inferior to madder. On the hills is pasture for cattle. There are now in Jura about 100 stags; though these must formerly have been much more numerous, as the original name of the island was *Deir ay*, or the isle of deer, so called by the Norwegians on account of the abundance of deer found in it. Between the north end of Jura and the small isle of Skarba there is a famous whirlpool, called *Cory-vrekan*, from Breacan, son of a king of Denmark, who perished in this gulph. See CORY-VREKAN. His body being cast ashore on the north side of Jura, was buried in a cave, and his grave is still distinguished by a tombstone and altar. Jura has many rivulets and springs of excellent water, and the air is remarkably healthy; its salubrity being increased by the high situation, perpetually fanned by breezes.

JURA, or JURA and COLONSAY, a parish of Scotland, in Argyleshire, consisting of the above island which forms by far the greatest part of it, and of other eight islands. Of these nine islands, six are inhabited; Colonsay and Oronsay form the west division of the parish; and Skarba, Lunga, and Balmhuaign, with three uninhabited isles, lie on the north of Jura. The whole parish, including the intervening arms of the sea, is fifty miles long and thirty broad.

JURA, THE DEPARTMENT OF, in France is formed of part of the former province of Franche-Comté, and derives its name from a chain of mountains, parallel with the Alps, which extends from the southern extremity of the department of Ain, as far as that of the Upper Rhine, separating Switzerland from France. The chief place of this prefecture is Lons-le-Saulnier; it consists of four arrondissements or subprefectures; Lons-le-Saulnier containing 107,993 inhabitants; Dole, 69,792; Poligny, 73,559; and St. Claude 50,404; making a total population of 301,748 souls, having thirty-two justiciaries of the peace, or cantons; 675 communes; and a surface of 2301 square miles. Its revenue amounts to 15,351,000 francs. It is in the sixth military division, has a royal court and bishopric at Besançon, and is divided into two electoral arrondissements, sending three members to the chamber of deputies.

The department of Jura is bounded on the north by that of the Upper Saône; on the northeast by that of Doubs; on the east by that of the Ain; and on the west by those of Saône et Loire, and Côte d'Or. It is intersected by mountains, plains, and marshes; and its productions are consequently very different on account of the nature of the soil. Two-thirds of the whole country lie in that part of the Alps which bears the name of Jura, of which the highest summits rise to 5200 feet. On the east these heights are very accessible, and have many deep valleys between them. The soil is generally rocky, light, of very little depth, and by no means fertile. The harvest, though tolerably abundant in the plains, is by no means sufficient for the support of the inhabitants; the mountains produce nothing but the inferior grains; they are, however, rich in pasturage, which feeds during the

summer great numbers of black cattle and excellent horses. During this season the cheese-houses, erected on the heights, serve as habitations for the herdsmen, and stables for the horned cattle; and they make here great quantities of butter and cheese for exportation. At the beginning of October, the herdsmen descend with their flocks into the lower regions. Vines are very numerous in Jura; they extend over the sides of the hills to a distance of sixty miles, and yield most excellent wines; those of Arbois, Salins, and Lons-le-Saulnier, are the most celebrated. The violent winds, which prevail in these countries, render the winters long and severe; so that the snow continues on the mountains for some months in the year. A great part of the country is covered with forests of fir and box trees, the wood of which is worked within the department; grottoes also are found, adorned with stalactites and curious petrifications, with fine cascades, and most beautiful scenes along the course of the Ain, the Limon, the Langonnet and the Seille. This department likewise possesses fine salt springs, which yield annually about 60,000 quintals of salt. The soil being rocky, it is mostly cultivated by oxen, and the produce is not very abundant. There are 135,053 hectares of forests (oak, beech, and green wood), and 16,060 hectares of vineyards, producing on an average seventeen francs, twenty-four centimes the hectare.

The productions of this country consist of wheat, rye, barley, oats, maize, buck-wheat, hemp, rape-seed, walnuts, fruits, fine wines, wood, excellent pasturage, medicinal plants, and plants for dyeing in great abundance. There is also plenty of great and small game, such as deer, wild cats, squirrels, heath-cocks, red-breasts, and a small kind of eagles. The rivers and lakes produce great quantities of fish, particularly salmon trout, and crabs. They have large herds of horses, mules, horned cattle, and many fowls; numberless swarms of bees; mines abounding in iron and pit-coal; and quarries of various kinds of marble, beautifully white alabaster, very fine plaster, mill-stones, lime-stone, and inflammable schistus. At Salins and Lons-le-Saulnier there are springs impregnated with salt.

This department is famous for large manufactures of works in horn, bone, ivory, mother of pearl, box and other woods, wooden clocks, copper, iron, and steel. The inhabitants also make quantities of coarse cloth, linens, handkerchiefs, mineral acids, salt, casks, axes, and scythes; they have forges, foundries, nail manufactories, tile-kilns, paper-mills, and celebrated tanneries. They deal largely in the preparation of natural and artificial stones, and make cheeses in the mountains, something like that of Gruyere and Sept Moncel. A considerable number of workmen are continually emigrating; and carriers, with their little carts harnessed to a single horse, travel about into the interior of the kingdom, selling their cheese in great abundance. A considerable trade is carried on in corn, wine, brandy, fowls, honey, deals, hemp, rape, oil, turnery, toys, and clocks and watches of Franche Comté.

The principal rivers in this department are the

Doubs, the Ain, the Clause, the Louve, the Grossane, and the Tacon. In it also is the grand canal; and, it is crossed by the great roads of Lyons, Dijon, Besançon, and Geneva.

JURA, a chain of mountains in Switzerland, beginning in the canton of Zurich, extending from thence along the Rhine into the canton of Basle, stretching into that of Soleure and the territory of Neufchâtel, and branching out towards the Pays de Vaud; separating that county from the ci-devant Franche Comté and Burgundy, and continued beyond the late Genevan territories as far as the Rhône. Many elevated valleys are formed by different parts of this chain in the Pays de Vaud; among which one of the most remarkable is the valley of the lake of Joux, on the top of that part of the chain named Mount Joux. It contains several populous villages, and is beautifully diversified with wood, arable land, and pasture. It is watered by two lakes; the largest of which is that of Joux. This has one shore of a high rock covered with wood; the opposite banks forming a gentle ascent, fertile, and well cultivated; behind which is a ridge covered with pines, beech, and oak wood. The smaller lake, named Brenet, is bordered with fine corn fields and villages; and the stream which issues from it is lost in a gulf named Entonnoir, or the Funnel, where several mills are turned by the falling current. The Orbe issues from the other side of the mountain, about two miles from this place; and probably owes its origin to the subterraneous stream just mentioned. The largest lake is supplied by a rivulet which issues from the bottom of a rock, and loses itself in it. The valley contains about 3000 inhabitants, remarkable for their industry in making watches and jewellery. The country is much infested with bears and wolves. In ascending to this place there is a very extensive prospect of great part of the Pays de Vaud, the lake of Geneva, and that of Neufchâtel, which from that high point of view appears to be nearly on a level; though M. de Luc found the latter to be 159 feet above the level of the lake of Geneva. The Jura mountains are mentioned by Caesar, Pliny, Strabo, and Ptolemy. In Switzerland they bear the different names of the Lagerberg, the Batsberg, Hauenstein, Freyberg, &c. The most elevated peaks are the Reculet, the Dôle, and the Montendre, the respective heights of which are 5200, 5178, and 5170 feet above the level of the sea. These, however, are much lower than the summits of the Alps, nor are there here perpetual snows, or the sources of any great rivers.

JU'RAT, <i>n. s.</i>	Jurat is from Lat. <i>juratus</i> . A magistrate in some corporations.
JU'RATORY, <i>adj.</i>	
JURID'ICAL, <i>adj.</i>	
JURID'ICALLY, <i>adv.</i>	Juratory, comprising
JURISCON'SULT, <i>n. s.</i>	an oath. Juridical,
JURISDICTION, <i>n. s.</i>	Lat. <i>judiciorum</i> and <i>dico</i> , act-
JURISPRUDENCE, <i>n. s.</i>	ing in the distribu-
JURIST, <i>n. s.</i>	tion of justice; used
JUR'OR, <i>n. s.</i>	in courts of justice:
JU'RY, <i>n. s.</i>	juridically, according
JU'RYMAN, <i>n. s.</i>	to the law or forms
	of justice. Jurisconsult, Lat. <i>juris</i> and <i>consultus</i> , one who gives legal opinions. Jurisdiction, Lat.

jus and *dico*, legal authority in the district to which it extends : jurisprudence, Lat. *juris* and *prudentia*, the science of law : jurist, a civil lawyer : juror, one that serves on the jury : jury, a body of sworn men : juryman, one who is empanelled on a jury.

Than had he, thurgh his jurisdiction,

Power to don hem correction. *Chaucer.*

You wrought to be a legate ; by which power

You maimed the jurisdiction of all bishops. *Shaks.*

This is not to be measured by the principles of jurists. *Bacon.*

As Adam had no such power as gave him sovereign jurisdiction over mankind. *Locke.*

According to a juridical account and legal signification, time within memory, by the statute of Westminster, was settled in the beginning of the reign of king Richard the First. *Hale.*

A contumacious person may be compelled to give juratory caution de parendo juri. *Ayliffe.*

There is mention made in a decision of the jurisconsult Javolemus, of a Britannick fleet. *Arbuthnot.*

The hungry judges soon the sentence sign,

And wretches hang that *jurymen* may dine. *Pope.*

JURIEU (Peter), a French Protestant divine, born in 1637, was educated in England under his maternal uncle Peter du Moulin, and took orders in the English church ; but returning to succeed his father as pastor to a reformed congregation at Mer, in the diocese of Blois, he was made professor of divinity and Hebrew at Sedan, where he gained great reputation. This university being taken from the Protestants, a professorship of divinity was founded at Rotterdam ; where he was also appointed minister of the Walloon church. He died in 1713 ; and left a great number of esteemed works behind him, particularly a History of Calvinism, and a Commentary on the Revelations.

JURIN (Dr. James), a secretary of the Royal Society in London, as well as president of the College of Physicians there. He had great disputes with Michellotti upon the motion of running water, with Robins upon distinct vision, and with the partizans of Leibnitz upon moving bodies. His Essay upon Distinct and Indistinct Vision is printed in Smith's Optics ; and seventeen of his papers on various subjects (of which Dr. Hutton gives a list in his Math. Diet.) are inserted in the Philosophical Transactions. He died in 1750.

JURISCONSULT, jurisconsultus, commonly contracted into Ictus, among the Romans, denoted a person learned in the law ; a master of the Roman jurisprudence, who was consulted on the interpretation of the laws and customs, and on the difficult points in lawsuits. The fifteen books of the Digests were compiled wholly from the reports of the ancient jurisconsulti. The jurisconsulti seem to have been a kind of chamber counsellors, who arrived at the honor of being consulted through age and experience, but never pleaded at the bar. Their pleading advocates or lawyers never became jurisconsulti. See ADVOCATE. In the times of the republic, the advocati had by much the more honorable employment, as being in the ready way to attain the highest preferments. They then despised the jurisconsulti, calling them in derision *formulari* and *legulei*, as having invented certain forms and

monosyllables, to give their answers the greater appearance of gravity and mystery. But in process of time they became so much esteemed, that they were called prudentes and sapientes, and the emperors commanded the judges to follow their advice. Augustus advanced them to the public offices of the empire.

JURISDICTION is a power which a man has to do justice in cases of complaint made before him. There are two kinds of jurisdiction, the one ecclesiastical, the other secular. Ecclesiastical jurisdiction belongs to bishops and their deputies. Bishops, &c., have two kinds of jurisdiction ; the one internal, which is exercised over the conscience in things purely spiritual ; and this they are supposed to hold immediately of God. The other is contentious, which is a privilege some princes have given them in terminating disputes between ecclesiastics and laymen. Secular jurisdiction belongs to the king and his justices or delegates. The courts and judges at Westminster have jurisdiction all over England ; but all other courts are confined to their particular jurisdictions. There are three sorts of inferior jurisdictions ; the first is tenere placita, to hold pleas, and the plaintiff may sue either there or in the king's courts. The second is the concusane of pleas, where a right is invested in the lord of the franchise to hold pleas : and he is the only person that can take advantage of it, by claiming his franchise. The third sort is an exempt jurisdiction, as where the king grants to some city that the inhabitants shall be sued within their city, and not elsewhere ; though there is no jurisdiction that can withstand a certiorari to the superior courts.

JURISDICTIONS, HEREDITARY, an hereditary right or power, enjoyed for ages by many of the nobility and gentry of Scotland, more especially by those in the Highlands, of exercising the rights of judges in criminal cases, over all the people who resided on their estates. This power extended even to trials for capital crimes, or, what amounted to the same thing, crimes deemed worthy of capital punishment by the chieftain against whom, or within whose jurisdiction, they were committed ; and who thus generally monopolized, in his own character, the discordant privileges of prosecutor, judge, and jury, without being amenable to the supreme court in the kingdom. Such an unlimited power of pit and gallows, as it was called, in the hands of even the most enlightened subjects, was liable to be grossly abused ; and accordingly there are still two proverbial expressions currently used in Scotland, of Cupar justice, and Jedburgh justice, founded upon traditions, that at these places men had actually been first hanged, and afterwards tried ! The natural consequence of such powers was, that every chieftain was an arbitrary sovereign within the jurisdiction of his own property, and could call forth his tenants and other dependents by hundreds, to fight against any neighbouring chieftain. This power of the chieftains was peculiarly serviceable to the cause of the rebels in 1714 and 1745 ; but it was not till after the last of these rebellions that the British government began to think of abolishing it. The combination of their clans, says

Mr. Heron, their attachments to their chieftains, and the advantages of power, which these chiefs were understood to derive from the union of hereditary civil jurisdictions with patriarchal authority, and with the property of the soil; seemed to be the principal means, or cause, which rendered Highlanders so averse from owning the full authority of the national government; which made them terrible, and perpetuated their Jacobitism. The hereditary jurisdictions were, therefore, by a compulsive sale, and for a stipulated price, purchased from all those of the Scottish gentry and nobles whose families enjoyed such jurisdictions. Hist. of Scotland, vol. v. p. 1233—4. The act was passed in 1743. See CLANS.

JURISPRUDENCE is, strictly, the science of right, and is a term that has been applied to the study of all the laws, statutes, and customs which have been adopted in different nations for securing the personal and social rights of their members. When we find it qualified by the adjective civil, it is synonymous with the term civil law, which (see our article LAW) has been entirely moulded in modern nations by that of the Romans; feudal jurisprudence is a term that has been used to comprehend all the feudal institutions; canonical jurisprudence is that of the canon law.

We must avoid, as Hooker has well said, ‘the measuring by one kind of law all the actions of men’: this were to confound, as he afterwards observes, what God has made ‘distinct in nature as in degree’: yet the basis of all just legislation for man must be found in certain principles of civil government applicable to all states and stages of society, while it is perfectly clear that what is abstractedly just and perfectly proper for one stage of advancement in the social system, would in many instances be at once unintelligible and unjust, applied to mankind in other stages or degrees of progress. The study of jurisprudence must, therefore, be historical. At one period of the emergence of a nation from barbarism (as in the existing state of the South Sea Islanders), it must be a question mixed up with all the various sanctions and sources of law, divine and human; at another, as in the history of the United States of America, since their independence, it has been held essential to distinguish, and even to separate entirely, questions of a religious and spiritual, from those of a civil and temporal kind. It is singular to observe the missionaries of these very states, however, of necessity engaged in a sort of universal legislation, owing its chief sanctions to religion, for the South Sea Islanders.

Perhaps the greatest question of modern jurisprudence has been thus enunciated—the degree to which religious sanctions must be made to enter directly and permanently into the authority of human laws. Oaths, and all ecclesiastical benefits bestowed by a state, are of this kind: every civilised nation has adopted the former; yet our own legal indulgence in this matter to the Friends or Quakers, and the example of the United States in the latter (to say nothing of the recent admission of all Christian sects to political power in this country), would seem to suggest the possibility of preserving a greater distinctness

in the divine and human sanctions of law, than entered into the conception of our forefathers. But we have already stated the main outlines of the various codes that have been hitherto adopted in the article referred to: and it is the duty of an encyclopædiast, we conceive, to be historical, rather than speculative, upon any of these points.

JURY, in English law. Juries are, in these kingdoms, the supreme judges in all courts and in all ordinary causes, in which either the life, reputation, or property, of any man is concerned; this is the distinguishing privilege of every Briton, and one of the most glorious advantages of the British constitution; for, as every one is tried by his peers, the meanest subject is as safe and as free as the greatest.

JURYMAST, *n. s.* It seems to be properly durée mast, mât de duree, a mast made to last for the present occasion. So the seamen call whatever they set up in the room of a mast lost in a fight or by a storm.

For they were forced with steering to dispense,
And never hap as yet a quiet day
When they might repose, or e'en commence
A *jurmast* or rudder, or could say
The ship would swim an hour. *Byron.*

JUS CIVILE, amongst the Romans, signified no more than the interpretation given by the learned of the laws of the XII Tables, though the phrase now extends to the whole system of the Roman laws.

JUS CIVITATIS signifies freedom of the city of Rome, which entitled those persons who had obtained it to most of the privileges of the Roman citizens; yet it differs from jus quiritum, which extended to all the advantages to which a free native of Rome was entitled. The difference is much the same as betwixt denization and naturalisation with us.

JUS IMAGINIS was the right of using pictures and staines in funeral processions, &c., amongst the Romans, and had some resemblance to the right of bearing a coat of arms in modern times. This honor was allowed to none but those whose ancestors or themselves had borne some curule office. See IMAGE.

JUS PAPIRIANUM, the laws of Romulus, Numa, and other kings of Rome, collected into a body by Sextus Papirius, who lived in the time of Tarquin the Proud.

JUS PATRONATUS is a commission granted by the bishop, to enquire who is the rightful patron of a church. If two patrons present their clerks, the bishop shall determine who shall be admitted by right of patronage, on commission of enquiry by six clergymen and six laymen, living near the church; who are to enquire on articles as a jury. The awarding a jus patronatus is not of necessity, but at the pleasure of the ordinary for his better information who has the right of patronage: for, if he will at his peril take notice of the right, he may admit the clerk of either of the patrons, without a jus patronatus.

JUS TRIUM LIBERORUM was a privilege granted to such persons in the city of Rome as had three children, by which they were exempted from all troublesome offices. The same exemption was granted to any persons who lived in other parts of Italy, having four children; and

those that lived in the provinces, provided they had five, or as some say seven, children, were entitled to the same immunities.

JUSSICA, in botany, a genus of the monogynia order, and decandra class of plants; natural order seventeenth, calycanthemæ: CAL. quadripartite or quinquepartite superior; petals four or five: CAR. quadrilocular or quinquelocular, oblong, opening at the angles; the seeds numerous and small.

JUSSIEU (Anthony de), a celebrated French botanist and physician, born at Lyons, in 1686. After travelling through various parts of Europe, he settled in Paris, and published many works on natural history. He died in 1758.

JUSSIEU (Bernard de), brother of Anthony, whom he resembled in his scientific as well as professional pursuits. He was curator of plants in the royal gardens at Paris and Trianon. Died in 1777.

JUSSIEU (Joseph de), M. D., another learned botanist of the same family with the two preceding, was born at Lyons, in 1704. He accompanied the academicians who were sent to Peru, to measure a degree, as a botanist. He returned to France in bad health, after residing in Peru thirty-six years, and died in 1779.

JUST, *adj.* Fr. *juste*; Lat. *justus*. Upright; incorrupt; equitable in the distribution of justice.

Men are commonly so *just* to virtue and goodness, as to praise it in others, even when they do not practice it themselves. *Tillotson*.

Honest; without crime in dealing with others. *Just* balances, *just* weights, and a *just* ephah. *Lee*, xix.

It is uncertain whether *just of* has any other authority.

Just of thy word, in every thought sincere, Who knew no wish but what the world might hear. *Pope*.

Exact; proper; accurate.

Boileau's numbers are excellent, his expressions noble, his thoughts *just*, his language pure, and his sense close. *Dryden*.

These scenes were wrought, Embellished with good morals and *just* thought. *Grawille*.

Just precepts thus from great examples given, She drew from them what they derived from Heaven. *Pope*.

Just to the tale, as present at the fray, Or tanght the labours of the dreadful way. *Id.* Once on a time La Mancha's knight, they say, A certain bard encountering on the way, Discoursed in terms as *just*, with looks as sage, As ere could Dennis of the laws o' the stage. *Id.* Though the sylllogism be irregular, yet the inferences are *just* and true. *Watts's Logick*.

You bear a *just* resemblance of my fortune, And suit the gloomy habit of my soul. *Young*. Virtuous; innocent; pure.

How should man be *just* with God? *Job*. A *just* man falleth seven times and riseth. *Prov.*

He shall be recompensed at the resurrection of the *just*. *Matt.*

The *just* the unjust to serve. *Milton*. True; not forged.

Crimes were laid to his charge too many, the least whereof, being *just*, had bereaved him of estimation and credit. *Hooker*.

Grounded on principles of justice; rightful.

Me though *just* right
Did first create your leader. *Milton*.

Equally retributed. |
He received a *just* recompense of reward. *Heb.* ii. 2

Whose damnation is *just*. *Rom.* iii. 8.

As Hesiod sings, spread water o'er thy fields,
And a most *just* and glad increase it yields. *Denham*.

I would not shrink
From *just* infliction of due punishment

On those who seek your life: wer't otherwise
I should not merit mine. *Byron*. *Sardanapalus*.

Complete without superfluity or defect.
He was a comely personage, a little above *just* stature, well and straight limbed, but slender. *Bacon's Henry VII*.

Regular; orderly.
When all

The war shall stand ranged in its *just* array,
And dreadful pomp, then will I think on thee. *Addison*

Exactly proportioned.
The prince is here at hand: pleaseth your lordship
To meet his grace, *just* distance 'tween our armies! *Shakspeare*.

Full; of full dimensions.
His soldiers had skirmishes with the Numidians, so that once the skirmish was like to have come to a *just* battle. *Knotles's History*.

There is not any one particular above mentioned, but would take up the business of a *just* volume. *Hale's Origin of Mankind*.

There seldom appeared a *just* army in the civit wars. *Duchess of Newcastle*.

Just, *adv.*
Exactly; nicely; accurately.

They go about to make us believe that they are *just* of the same opinion, and that they only think such ceremonies are not to be used when they are unprofitable, or when as good or better may be established. *Hooper*.

There, even *just* there he stood; and as she spoke, Where last the sceptre was, she cast her look. *Dryden*.

The god Pan guided my hand *just* to the heart of the beast. *Sidney*.

A few understand him right; *just* as when our Saviour said, in an allegorical sense, Except ye eat the flesh of the son of man, and drink his blood, ye have no life in you. *Bentley*.

Tis with our judgments as our watches, none Go *just* alike; yet each believes his own. *Pope*.

The diadem, with mighty projects lined To catch renown by ruining mankind; Is worth, with all its gold and glittering store, *Just* what the toy will sell for, and no more. *Couper, Table Talk*.

Merely; barely.
The Nereids swam before

To smooth the seas; a soft Etesian gale But *just* inspired and gently swelled the sail. *Dryden*.

Give me, ye gods, the product of one field, That so I neither may be rich nor poor; And having *just* enough, not covet more. *Id.*

It is the humour of weak and trifling men to value themselves upon *just* nothing at all. *L'Estrange*.

On drooping pinions of ambition lowered Just skim earth's surface, ere we break it up

O'er putrid earth to scratch a little dust
And save the world a nuisance. *Young.*

Nearly ; almost ; tantum non.
Being spent with age, and just at the point of death, Democritus called for loaves of new bread to be brought, and with the steam of them under his nose prolonged his life. *Temple.*

Why art thou here ? There was an hovering angel
Just lighting on my heart, and thou hast scared it. *Maturin. Bertram.*

JUST, *n.s. & v.n.* Fr. *jouste*. Mock encounter on horseback ; tilt ; tournament : joust more proper : to engage in a mock fight ; to push, drive, or justle. See *Joust*.

What news ? hold those *jousts* and triumphs ? *Shakspeare.*

None was either more grateful to the beholders, or more noble in itself, than *jousts*, both with sword and lance. *Sidney.*

Among themselves the tourney they divide,
In equal squadrons ranged on either side ;
Then turned their horses' heads, and man to man,
And steed to steed opposed, the *jousts* began. *Dryden.*

JUSTS were a sportive kind of combat on horseback, man against man, armed with lances. The word is by some derived from *jousti*, French, of *juxta*, Latin, because the combatants fought near each other : others from the modern Greek *τίσεται*. Others from *justa*, which, in the corrupt age of the Latin tongue, was used for this exercise, as it was supposed a more just and equal combat than the tournament. The difference between *jousts* and tournaments consists in this, that the tournament was frequently performed by a number of cavaliers, who fought in a body : the *joust* was a single combat of one man against another. Though the *jousts* were usually made in tournaments after a general encounter of all the cavaliers, yet they were sometimes singly, and independent of any tournament. Under the title *Tournament* it is our intention more particularly to refer to these manly games of ancient chivalry.

JUSTEL (Christopher), a learned counsellor, and secretary to the French king, was born at Paris in 1580, and studied ecclesiastical history. He maintained a correspondence with archbishop Usher, Sir Henry Spelman, and other of the literati of his age, till his death which happened in 1649. He wrote 1. The Code of the Canons of the Church Universal, and the Councils of Africa, with notes ; 2. A Genealogical History of the house of Auvergne ; and 3. Collections of Greek and Latin Canons, from several MSS., which formed the *Bibliotheca Juris Canonici Veteris*, published in 2 vols. folio, by William Voet and our author's son.

JUSTEL (Henry), son of Christopher, was born at Paris in 1620. He became secretary and counsellor to the king ; and was as distinguished for his own learning as for patronising it in others. He came to London in 1681, on the persecution of the Protestants ; and was made keeper of the royal library at St. James's : which office he held till his death in 1693, when he was succeeded by the celebrated Dr. Bentley. He wrote several works, the titles of which may be seen in the catalogue of the Bodleian library.

JUSTICE, *n.s. & v.a.* Fr. *justice* ; Lat. *justitia*. The virtue by which we give to every man what is his due ; opposed to injury or wrong. It is either distributive, belonging to magistrates ; or commutative, respecting common transactions between men : equity ; retributive punishment ; assertion of right ; a magistrate ; a judge, of which there are several orders, as specified below : justice, to administer justice : justicement, procedure in courts : justicer, an administrator of law : justiceship, the magisterial office : justiciable, proper to be examined in courts of justice.

He executed the *justice* of the Lord. *Deut.*
O that I were a judge, I would do *justice*. *2 Sam.*
Let *justice* overtake us. *Isa. lix. 9.*

And thou, Esdras, ordain judges and *justices*, that they may judge in all Syria. *I Esdras.*

But mercy, Lady ! —at the gret assise,
When we shall come before the high *justice*,
So little frent shal then in one ben found,
That but thou, or that day, correcten me,—
Of very right, mine werke will be confounded.

Chaucer's A, B, C.

The *justice*,
In fair round belly with good capon lined,
With eyes severe, and beard of formal cut,
Full of wise saws and modern instances ;
And so he plays his part.

Shakspeare. As You Like It.

Draw thy sword,

That if my speech offend a noble heart,

The arm may do thee *justice*. *Id. King Lear.*
The *justices* of peace are of great use ; anciently they were conservators of the peace ; these are the same, saving that several acts of parliament have enlarged their jurisdiction. *Bacon.*

As for the title of proscription, wherein the emperor hath been judge and party, and hath *justiced* himself, God forbid but that it should endure an appeal to a war. *Bacon.*

Examples of *justice* must be made, for terror to some ; examples of mercy, for comfort to others.

Bacon's Advice to Villiers.

He was a singular good *justicer* ; and, if he had not died in the second year of his government, was the likeliest person to have reformed the English colonies. *Decay of Ireland.*

Whereas one Styward, a Scot, was apprehended for intending to poison the young queen of Scots ; the king delivered him to the French king, to be *justiced* by him at his pleasure. *Hayward.*

The nature and office of *justice* being to dispose the mind to a constant and perpetual readiness to render to every man his due, it is evident, that, if gratitude be a part of *justice*, it must be conversant about something that is due to another. *Locke.*

True fortitude is seen in great exploits

That *justice* warrants, and that wisdom guides,
All else is towering frenzy and distraction.

Addison.

And never meant the rule should be applied
To him that fights with *justice* on his side.

Couper. Table Talk.

There is no future pang
Can deal that *justice* on the self-condemned,
He deals on his own soul.

Byron.

Were I to profane these by impudent criticism,
I might with *justice* be accused of avowed enmity to
wit ; of open apostasy from true feeling, and true
taste. *Canning. Microcosm.*

JUSTICE is one of the four cardinal virtues. Civilians distinguish justice into two kinds ; communicative and distributive.

1. *Communicative justice* establishes fair dealing in the mutual commerce between man and man : and includes sincerity in our discourse, and integrity in our dealings. The effect of sincerity is mutual confidence, so necessary among the members of the same community ; and this mutual confidence is sustained and preserved by integrity of conduct. But there seems to be an essential ingredient in communicative or private justice, which is seldom taken notice of by writers on ethics ; we mean mercy. In the present state of human nature strict justice, such as the utmost rigor of law allows, frequently becomes injustice. This truth we often find exemplified in private life, by rigorous creditors against unfortunate debtors. A striking instance of this kind of justice is recorded of Joseph, the husband of the blessed Virgin, in Matt. i. 19, where he is expressly styled a just man, because he would not go to the utmost rigor even of the Divine Law.

2. *Distributive justice* is that by which the differences of mankind are decided, according to the rules of equity. This is the justice of princes and magistrates. Among the numerous examples of this virtue, which might be given from various authors, we shall only call the attention of the reader to two instances recorded of Aristides, who, though in low circumstances, and of mean extraction, obtained the glorious surname of the Just ; a title, says Plutarch, truly royal, or rather truly divine : but of which princes are seldom ambitious, because generally ignorant of its beauty and excellence. These are inserted under the article *ATRICA* ; and the first of them reflects the highest honor, not only upon Aristides, but, upon the Athenians, who by his advice rejected the measure which would have aggrandised their republic to a decided superiority over all the rest of Greece, merely because it would have been unjust.

JUSTICE. In English law, according to Cowel, we have, 1. *A Justice of the common pleas* (*justitiarius communium placitorum*). He is a lord by his office, and is called *dominus justiciarius communium placitorum*. He with his assistants originally did hear and determine all causes at the common law ; that is, all civil causes between common persons, as well personal as real ; for which cause it was called the court of common pleas, in opposition to the pleas of the crown, or the king's pleas, which are special, and appertain to him only. 2. *Justice of the forest* (*justiciarius forestae*), is a lord by his office, and has the hearing and determining of all offences within the king's forest, committed against venison or vert : of these there are two, whereof the one has jurisdiction over all the forests on this side Trent, and the other of all beyond. 3. *Justices of assize* (*justitiarii ad capiendas assisas*) are such as were wont, by special commission, to be sent into this or that country to take assises ; the ground of which policy was the ease of the subjects ; for, whereas these actions pass always by jury, so many men might not, without great hindrance be brought to London ; and therefore

justices for this purpose, were by commission particularly authorised and sent down to them.

4. *Justices in eyre* (*justiciarii itinerantes*) are so termed of the French error. The use of these, in ancient time, was to send them with commission into divers counties, to hear such causes especially as were termed the pleas of the crown, and therefore I must imagine they were sent abroad for the ease of the subjects, who must else have been hurried to the king's bench, if the case were too high for the country court. They differed from the justices of oyer and terminer, because they were sent upon some one or few especial cases, and to one place ; whereas the justices in eyre were sent through the provinces and countries of the land, with more indefinite and general commission. 5. *Justices of gaol delivery* (*justitiarii ad gaolas deliberandas*) are such as are sent with commission to hear and determine all causes appertaining to such as for any offence are cast into gaol, part of whose authority is to punish such as let to mainprise those prisoners that by law are not bailable. These by likelihood, in ancient time, were sent to counties upon several occasions ; but afterwards justices of assise were likewise authorised to this.

6. *Justices of nisi prius* are all one now a-days with justices of assise ; for it is a common adjournment of a cause, in the common pleas, to put it off to such a day : *nisi prius justitiarii venerint ad eas partes ad capiendas assisas* ; and upon this clause of adjournment they are called justices of *nisi prius*, as well as justices of assise, by reason of the writ or action that they have to deal in. 7. *Justices of peace* (*justitiarii ad pacem*) are they that are appointed by the king's commission, with others, to attend the peace of the country where they dwell ; of whom some, upon especial respect, are made of the quorum, because business of importance may not be dealt in without the presence of them, or one of them.

A JUSTICE, in English law, is a person deputed to administer justice, whose authority arises from his majesty's deputation, and not by right of magistracy. Of these justices there are various kinds in England : viz.

1. *Chief justice of the common pleas*, see the preceding article.

2. *Chief justice of the king's bench*, the capital justice of Great Britain. This officer was formerly not only chief justice, but also chief baron of the exchequer, and master of the court of wards. He usually sat in the king's palace, and there executed that office, formerly performed per comitem palatii ; he there determined all differences between the barons and other great men. He was vicegerent of the kingdom when the king went beyond sea, and was usually chosen to that office out of the prime nobility ; but his power was reduced by king Richard I. and Edward I. His office is now divided, and his title changed to *capitalis justitiarius ad placita, coram rege tenenda, or capitalis justitiarius banci regi*.

To the preceding description of our great legal officers from Cowel, may be added that of

Justices of assise. Those pass the circuit by two twice every year through all England, ex-

cept the four northern counties, where they go only once, despatching their several businesses by several commissions; for they have one commission to take assises, another to deliver gaols, and another of oyer and terminer. In London and Middlesex a court of general gaol-delivery is held eight times a year. All the justices of peace of any county wherein the assises are held are bound by law to attend them, or else are liable to a fine, in order to return recognizances, &c., and to assist the judges in such matters as lie within their knowledge and jurisdiction, and in which some of them have been probably concerned, by way of previous examination. See *Assise and J'ry.*

Justices of gaol-delivery are empowered by the common law to proceed upon indictments of felony, trespass, &c.; to order execution or reprieve; and to discharge such prisoners as upon their trials shall be acquitted; with all such against whom, on proclamation being made, no evidence appears to indict; which justices of oyer and terminer, &c., may not do. 2 Hawk. 24, 25. But these justices have nothing to do with any person not in the custody of the prison, except in some special cases; as if some of the accomplices to a felony may be in such prison, and some of them out of it, the justices may receive an appeal against those who are out of the prison as well as those who are in it; which appeal, after the trial of such prisoners, shall be removed into B. R. and process issue from them against the rest. But if those out of prison be omitted in the appeal, they can never be put into any other; because there can be but one appeal for one felony. In this way the gaols are cleared and all offenders tried, punished, or delivered, in every year. Their commission is now turned over to the justices of assise.

Justices of oyer and terminer were justices deputed on some special occasions to hear and determine particular causes. The commission is directed to certain persons upon any insurrection, heinous demeanor, or trespass committed, who must first enquire, by means of the grand jury or inquest, before they are empowered to hear and determine by the help of the petit jury. It was formerly held, that no judge or other lawyer could act in the commission of oyer and terminer, or in that of gaol delivery, within the county where he was born or inhabited: but it was thought proper, by 12 Geo. II. c. 27, to allow any man to be a justice of oyer and terminer and general gaol-delivery, within any county of England.

Justices of the peace. Of these some for special respect are made of the quorum, so as no business of importance may be despatched without the presence or assent of them or one of them. However, every justice of peace has a separate power, and his office is to call before him, examine, and issue warrants for apprehending, and commit to prison, all thieves, murderers, wandering rogues; those that hold conspiracies, riots, and almost all delinquents, which may occasion the breach of the peace and quiet of the subject; to commit to prison such as cannot find bail, and to see them brought forth in due time to trial; and bind over the prosecu-

tors to the assises. And if they neglect to certify examinations and informations to the next gaol-delivery, or do not bind over prosecutors, they shall be fined. A justice may commit a person that doth a felony in his own view without warrant; but, if on the information of another, he must make a warrant under hand and seal for that purpose. If complaint and oath be made before a justice of goods stolen, and the informer, suspecting that they are in a particular house, shows the cause of his suspicion, the justice may grant a warrant to the constable, &c., to search in the place suspected, to seize the goods and person in whose custody they are found, and bring them before him or some other justice. The search on these warrants ought to be in the day-time, and doors may be broken open by constables to take the goods. Justices of peace may make and persuade an agreement in petty quarrels and breaches of the peace, where the king is not entitled to a fine, though they may not compound offences or take money for making agreements. A justice has a discretionary power of binding to good behaviour; and may require a recognizance, with a great penalty of one, for his keeping of the peace, where the party found is a dangerous person, and likely to break the peace, and do much mischief; and for default of sureties he may be committed to gaol. But a man giving security for keeping the peace in the king's bench or chancery, may have a supersedeas to the justices in the county not to take security; and also by giving surety of the peace to any other justice. If one make an assault upon a justice of peace, he may apprehend the offender, and commit him to gaol till he find sureties for the peace; and a justice may record a forcible entry on his possession; in other cases he cannot judge in his own cause. Contempts against justices are punishable by indictment and fine at the sessions. Justices shall not be regularly punished for any thing done by them in sessions as judges; and, if a justice be tried for any thing done in his office, he may plead the general issue, and give the special matter in evidence; and if a verdict is given for him, or the plaintiff be nonsuited, he shall have double costs, and such action shall only be laid in the county where the offence was committed. 7 Jac. c. 5; 21 Jac. c. 12. But, if they are guilty of any misdemeanor in office, information lies against them in the king's bench, where they shall be punished by a fine and imprisonment; and all persons who recover a verdict against a justice for any wilful or malicious injury are entitled to double costs. By 24 Geo. II. c. 44, no writ shall be sued out against any justice of peace, for any thing done by him in the execution of his office, until notice in writing shall be delivered to him one month before the suing out of the same, containing the cause of action, &c., within which month he may tender amends; and, if the tender be found sufficient, he shall have a verdict, &c. Nor shall any action be brought against a justice for any thing done in the execution of his office, unless commenced within six months after the act committed. A justice is to exercise his authority only within the county where he is appointed by his commission,

not in any city which is a county of itself, or town corporate, having their proper justices, &c., but in other towns and liberties he may. The power and office of justices terminate in six months after the demise of the crown, by an express writ of discharge under the great seal, by writ of supersedeas, by a new commission, and by accession of the office of sheriff or coroner. The origin of justices of the peace is referred to the fourth year of Edward III. They were first called conservators, or wardens of the peace, elected by the county, upon a writ directed to the sheriff; but the power of appointing them was transferred by statute from the people to the king; and under this appellation appointed by 1 Edw. III. c. 16. Afterwards the statute 34 Edw. III. c. 1, gave them the power of trying felonies, and they acquired the appellation of justices. They are appointed by the king's special commission under the great seal, the form of which was settled by all the judges A. D. 1590; and the king may appoint as many as he shall think fit in every county in England and Wales, though they are generally made at the discretion of the lord chancellor by the king's leave. At first the number of justices was not above two or three in a county, 18 Edw. III. c. 2. Then it was provided, by 34 Edw. III. c. 1, that one lord, and three or four of the most worthy men in the county, with some learned in the law, should be made justices in every county. The number was afterwards restrained first to six, and then to eight in every county, by 12 Rich. II. c. 10, and 14 Rich II. c. 11. But their number has greatly increased since their first institution. As to their qualifications, the statutes just cited direct them to be of the best reputation, and most worthy men in the county; and the statute 13 Rich. II. c. 7, orders them to be of the most sufficient knights, esquires, and gentlemen of the law; and by Hen. V. stat. 1, c. 4. and stat. 2, c. 1, they must be resident in their several counties. And, by 18 Hen. VI. c. 11, no justice was to be put in commission, if he had not lands to the value of £20 per annum. It is now enacted, by 5 Geo. II. c. 11, that every justice shall have £100 per annum, clear of all deductions: of which he must make oath by 18 Geo. II. c. 20. And if he acts without such qualifications he shall forfeit £100. It is also provided by 5 Geo. II. that no practising attorney, solicitor, or proctor, shall be capable of acting as a justice of the peace.

Justices of the peace within liberties are justices who have the same authority in cities or other corporate towns, as the others have in counties; and their power is the same; only that these have the assise of ale and beer, and wood and victuals, &c. Justices of cities and corporations are not within the qualification act, 5 Geo. II. c. 18.

In addition to what we have thus derived from the usual authorities, we may notice;

By 39 Geo. III. c. 110, certain judges' salaries were made up to the following amount in the whole, viz. master of the rolls and chief baron to £4000; puisne judges and barons £3000. By 49 Geo. III. c. 127, the salary of the chief baron was increased to £5000; and that of the puisne judges and barons to £1000.

Pensions may be granted (39 Geo. III. c. 110) by his majesty to the judges in England on resignation. To the lord chancellor £4000; chief justice of king's bench £3000; master of the rolls, chief justice of common pleas, and chief baron, £2500; puisne judges £2000. And, by 53 Geo. III. c. 153, £800 a year additional may be granted to the chief justices and chief barons, and master of the rolls; and £600 additional to the puisne judges and barons. Such judges (except the chancellor) must have continued in office fifteen years, unless prevented by ill health.

By 50 Geo. III. c. 31, the salaries of the Scotch judges were increased to the following amount, viz. the lord president of the court of session £4300; lords of session £2000; lord justice clerk £4000; lords of session, being commissioners of justiciary, £2600; lord chief baron £4000; puisne barons £2000.

The salaries and allowances of the judges in Ireland are ascertained by the Irish acts, 36 Geo. III. c. 26, and 40 Geo. III. c. 69. And by statutes 41 Geo. III. c. 25; 42 Geo. III. c. 105; 50 Geo. III. c. 31, § 3, 4; 54 Geo. III. c. 95; and 55 Geo. III. c. 114.

The salary of the lord chancellor is, by 42 Geo. III. c. 105, fixed at £10,000: and by 41 Geo. III. c. 25; 55 Geo. III. c. 114; that of the master of the rolls at £4300. By 36 Geo. III. c. 26, the salary of the chief justice of king's bench is increased to £4000 a year; that of the chief justice of common pleas, and the chief baron, to £3500; and those of the puisne judges and barons to £2500. By 50 Geo. III. c. 31, § 3, £650 are added to the puisne judges and barons.

49 Geo. III. c. 69, further regulates the allowances to the judges on resignation. Lord chancellor £4000 a year; chief justice of king's bench £3000; master of the rolls £2700; chief justice of common pleas, and chief baron of exchequer, £2700; puisne judges and barons £2000. By 54 Geo. III. c. 95, the following sums are added, viz. to the chief justice of king's bench £800; to the chief justice of common pleas, and chief baron, £600; puisne judges and barons £600. And by 55 Geo. III. c. 114, £600 are added to the allowance to the master of the rolls, on resignation.

The king is considered, in this realm, as the fountain of justice, and general conservator of the peace. The original power of judicature, by the fundamental principles of society, is lodged in the society at large; but, as it would be impracticable to render complete justice to every individual by the people in their collective capacity, every nation has committed that power to certain select magistrates, who, with more ease and expedition, can hear and determine complaints; and, in this kingdom, this authority has immemorially been exercised by the king or his substitutes. He, therefore, has alone the right of erecting courts of judicature; for, though the constitution of the kingdom has entrusted him with the whole executive power of the laws, it is impossible, as well as improper, that he should personally carry into execution this great and extensive trust; it is consequently necessary

that courts should be erected, to assist him in executing this power ; and equally necessary that, if erected, they should be erected by his authority. And hence it is that all jurisdictions of courts are, either mediately or immediately, derived from the crown ; their proceedings run generally in the king's name, they pass under his seal, and are executed by his officers.

Before the constitution arrived at its full perfection our kings, in person, often heard and determined causes. But at present, by the long and uniform usage of many ages, the king has delegated his whole judicial power to the judges of his several courts ; which are the grand depositories of the fundamental laws of the kingdom, and have gained a known and stated jurisdiction, regulated by certain and established rules, which the crown itself cannot alter, but by act of parliament.

The king in all cases doth judge by his judges ; who ought to be of counsel with prisoners : and if they are doubtful or mistaken in matter of law, a stander-by may be allowed to inform the court, as *amicus curiae*. 2 Inst. 178. Our judges are to execute their offices in proper person, and cannot act by deputy, or transfer their power to others ; as the judges of ecclesiastical courts may. 1 Rol. Abr. 382. Bro. Judges, 11. Yet, where there are divers judges of a court of record, the act of any one of them is effectual ; especially if their commissions do not expressly require more. 2 Hawk. P. C. c. 1. Though what a majority rules when present, is the act of the court ; if on a demurrrer, or special verdict, the judges are divided in opinion, two against two, the cause must be adjourned into the exchequer chamber. 3 Mod. 156. And a rule is to be made for this purpose, and the record certified, &c. 5 Mod. 335. In fines levied, all the judges of the king's bench ought to be particularly named : except when writs of certiorari to remove records out of that court, &c., are directed to the chief justice, without naming his companions. 1 Henry VII. 27 ; Jenk. Cent. 167. When a record is before the judges, they ought ex officio to try it ; but no judge is compellable to declare opinion of a cause before it comes on.

It is enacted, by the statute 13 Will. III., c. 2, that the commissions of the judges shall be made (not, as formerly, *durante bene placito*, but) *quamdiu se bene gesserint*, and their salaries ascertained and established ; but that it may be lawful to remove them on the address of both houses of parliament. And by the improvements of that law in the statute of 1 Geo. III., c. 23, enacted at the earnest recommendation of king George III. himself, from the throne, the judges are continued in their offices during their good behaviour, notwithstanding any demise of the crown (which was formerly held immediately to vacate their seats) ; and their full salaries are secured to them during the continuance of their commissions.

In criminal proceedings, or prosecutions for offences, it would be a still higher absurdity, if the king, personally, sat in judgment ; because, in regard to these, he appears in another capacity, that of prosecutor. All offences are either

against the king's peace, or his crown and dignity ; and are so laid in every indictment. For, though in their consequences they generally seem (except in the case of treason, and a very few others) to be rather offences against the kingdom than against the king, yet, as the public, which is an invisible body, has delegated all its power and rights, with regard to the execution of the laws, to one visible magistrate, all affronts to that power, and breaches of those rights, are immediately offences against him, to whom they are so delegated by the public. Hence also arises the most mild and enviable branch of the prerogative, that of pardoning offences.

In this distinct and separate existence of the judicial power in a peculiar body of men, nominated indeed, but not removable at pleasure by the crown, consists one main preservative of the public liberty ; which cannot subsist long in any state, unless the administration of common justice be, in some degree, separated both from the legislative and also from the executive power. Were it joined with the legislative, the life, liberty, and property of the subject would be in the hands of arbitrary judges, whose decisions would be then regulated only by their own opinions, and not by any fundamental principles of law ; which, though legislators may depart from it, yet judges are bound to observe. Were it joined with the executive, this union might soon be an overbalance for the legislative. For which reason, by statute 16 Car. I., c. 10, which abolished the court of star-chamber, effectual care is taken to remove all judicial power out of the hands of the king's privy council. See 1 Comm. 266—269. c. 7.

It is a species of treason under statute 25 Edw. III., c. 2, ‘if a man slay the chancellor, treasurer, or the king's justices of the one bench or the other, justices in eyre, or justices of assise, and all other justices assigned to hear and determine, being in their places doing their offices.’ But this statute extends only to the actually killing, not to wounding or attempting to kill them. It extends also only to the officers specified ; and therefore, the barons of the exchequer, as such, are not within the protection of the act. 1 Hal. P. C. 231. But the lord chancellor and keeper of the great seal seem to be comprehended by 5 Eliz. c. 18, and 1 Will. & Mary, c. 21. See LAW.

All the judges of courts of record are freed from prosecutions, and can only be punished in parliament for any thing done by them in such courts as judges ; but if a judge so far forget the dignity and honor of his post as to turn solicitor in a cause which he is to judge, and privately and extra-judicially tamper with witnesses, or labor jurors, he may be dealt with according to the capacity to which he so basely degrades himself. 12 Rep. 24. Vaugh. 138. S. P. C. 173. Judges are not in any way punishable for a mere error of judgment.

A judge on his creation swears, ‘That he will serve the king, and indifferently administer justice to all men, without respect of persons, take no bribe, give no counsel where he is a party, nor deny right to any, though the king, or any

other, by letters, or by express words, command the contrary, &c.; and in default of duty, to be answerable to the king in body, land, and goods.' Statute 18 Edw. III., statute 4. See also statute 20 Edw. III., c. 1, 2.

The judges have been said to have a private knowledge, and a judicial knowledge, and though they cannot judge of their own private knowledge, they may use their discretion: but where a judge has a judicial knowledge, he shall give judgment according to it. King Henry IV. asked judge Gascoign, If he saw one in his presence kill A. B., and another person, who was not culpable, should be indicted of this, and found guilty before him, what he would do in this case; to which he answered That he ought to respite the judgment against him, and relate the matter to the king, in order to procure him a pardon: for there he cannot acquit him, and give judgment according to his private knowledge.—Plowd. 82.

A judge ought not to judge in his own cause, or in pleas where he is party. If a fine be levied to a justice of bank, he cannot take the conusance; for he cannot be his own judge. 8 Henry VI., 21. Br. Patents, pl. 15, cites S. C. per Martin. If a fine be levied by or to a justice in bank, his name shall not be in the fine. 11 Henry VI. 49, b. So if a justice of bank be sued in bank he cannot record it; it shall be recorded by the other justices. Ibid. If the chief justice of bank be to sue a writ there, the writ shall not be in his name, but in the name of the secondary. 8 Henry VI., 19, b.

Judgment given by a judge, who is party in the suit with another, and so entered of record, is error, although several other judges sit there, and give judgment for the judge who is party. Jenk. 90, pl. 74. And judges are punishable for wilful offences against the duty of their situation; instances of which happily, however, live only in history. A justice cannot rase a record, or embezzle it, nor file an indictment which is not found, nor give judgment of death where the law does not give it; if he does, it is misprision, he shall lose his office, and make fine for misprision: but it is not felony.

By 13 Geo. III., c. 31, offenders against whom warrants are issued by any justice of peace in England, escaping into Scotland, the justices in Scotland may indorse the warrant, and the offender shall be conveyed to the adjacent county of England, and the justices there shall (if that is not the county where the offence was committed) indorse the warrant, &c., according to the directions of stat. 24 Geo. II., c. 55: and by 54 Geo. III., c. 186, the provisions of the act 13 Geo. III., c. 31, are extended to the cases of all warrants issued in England, Scotland, or Ireland, respectively.

JUSTICIA, Malabar nut, a genus of the monogynia order, and diandria class of plants; natural order fortioth, personatae: COR. ringent: CAPS. bilocular, parting with an elastic spring at the heel; the stamina have only one anthera. There are thirty species, all natives of the East Indies, growing many feet high; some adorned with fine large leaves, others with small narrow ones,

and all of them with monopetalous ringent flowers. Only two species are cultivated in our gardens, viz.

1. J. adhatoda the common Malabar nut. It grows ten or twelve feet high, with a strong woody stem, branching out widely all around; having large, lanceolate, oval leaves, placed opposite, and from the ends of the branches short spikes of white flowers, with dark spots, having the helmet of the corolla concave.

2. J. hyssopifolia, the snap-tree. It has a shrubby stem, branching from the bottom pyramidal, three or four feet high; spear-shaped, narrow entire leaves, growing opposite; and white flowers, commonly by threes, from the sides of the branches; succeeded by capsules, which burst open with elastic force for the discharge of the seeds: whence the name of snap-tree. Both species flower here in summer, but never produce any fruit. They are propagated by layers and cuttings, and require the same treatment with other tender exotics.

JUSTICIAR, in the old English laws, an officer instituted by Willian the Conqueror, as the chief officer of state, who principally determined in all cases civil and criminal. He was called in Latin *capitalis justitiarius totius Angliae*.

JUSTIFIABLE, *adj.* Fr. *justifier*; low Lat. *justifico*. To **JUSTIFI'ABLENESS**, *n. s.* justify is to clear **JUSTIFI'ABLY**, *adv.* from imputed guilt; **JUSTIFICATION**, *n. s.* to maintain, defend, **JUSTIFICA'TOR**, *n. s.* or vindicate; to ab-

JUSTIFY, *v. a.* J solve from obligation to punish. Justifiable, defensible by law or reason: justifiableness, rectitude; defensibility: justifiably, rightly, so as to be clear from blame: justification, absolution; proof of innocence; defence; vindication; deliverance by pardon from past transgression: justificator and justifier, one who justifies, absolves, defends, or acquits.

How can man be justified with God? Or how can he be clean that is born of a woman? Job.

They say, Behold a man gluttonous, a friend of publicans and sinners; but wisdom is justified of her children. Matthew.

By him all that believe are justified from all things, from which ye could not be justified by the law of Moses. Acts.

That he might be just, and the justifier of him which believeth in Jesus. Rom. iii. 26.

There is an exquisite subtlety, and the same is unjust; and there is a man that justifieth in judgment. Eccles.

I hope, for my brother's justification, he wrote this but as an essay of my virtue. Shakespeare.

The law hath judged thee, Eleanor; I cannot justify whom law condemns. Id.

Men, jealous of the justifiableness of their doings before God, never think they have human strength enough. King Charles.

"Tis the consummation of that former act of faith by this latter, or, in the words of St. Paul and St. James, the consummation of faith by charity and good works, that God accepteth in Christ to justify

cation, and not the bare aptness of faith to bring forth works, if those works, by the fault of a rebellious infidel, will not be brought forth. *Hammond.*

My unwilling flight the gods inforce,
And that must *justify* our sad divorce.
Dekham.

What she did, whatever in itself,
Her doing seemed to *justify* the deed.
Milton.

Just are the ways of God,
And *justifiable* to men. *Id. Agonistes.*

In such righteousness,
To them by faith imputed, they may find
Justification towards God, and peace
Of conscience. *Id. Paradise Lost.*

Although some animals in the water do carry a *justifiable* resemblance to some at land, yet are the major part which bear their names unlike.
Browne's Vulgar Errors.

When we began in courteous manner to lay his unkindness unto him, he seeing himself confronted by so many, like a resolute orator, went not to demand, but to *justify* his cruel falsehood. *Sidney.*

You're neither *justified*, nor yet accused.
Dryden.

Yet still thy fools shall stand in thy defence,
And *justify* their author's want of sense. *Id.*

A man may more *justifiably* throw cross and pile
for his opinions, than take them up by such measures.
Locke.

Let others *justify* their missions as they can, we
are sure we can *justify* that of our fathers by an uninterrupted succession.
Attberry.

Sins may be forgiven through repentance, but no
act or writ of man will ever *justify* them.
Sherlock.

Among theological arguments, in *justification* of
absolute obedience, was one of a singular nature.
Swift.

There stand, and *justify* the foul abuse
Of sabbath hours with plausible excuse.
Couper. Progress of Error.

Who, when occasion *justified* its use,
Had wit as bright as ready to produce.
Id. Conversation.

It is a foible which
Was not of mine, but more excuses you,
Inasmuch as it shows that I approach
A dotege which may *justify* this deed
Of yours, although the law does not, nor will.
Byron. Two Foscari.

An amendment has been made, and it has been
justified by a declaration which I made some years
ago, when I stated, that it would be exceedingly
onerous for this country to engage in war.
Canning's Speeches.

JUSTIFICATION, in theology, that act of grace
which renders a man free from sin in the sight of
God. See THEOLOGY. Protestants contend for
justification by faith alone; the Romanists by
good work.

JUSTIN I., emperor of the east, rose gradually
from being a swine-herd to the rank of general,
and finally became emperor on the death of
Anastasius I. in 518. He recalled the orthodox
bishops, and published some severe edicts against
the Arians. He died A. D. 527, aged fifty-seven.

JUSTIN MARTYR, or ST. JUSTIN, evc of the

earliest and most learned writers of the eastern church, was born at Neapolis, the ancient Shechem of Palestine. His father Priscus, a Gentle Greek, brought him up in his own religion, and had him educated in all the Grecian learning. To complete his studies he travelled to Egypt; and followed the sect of Plato, with whose philosophy he was much pleased. But one day walking by the sea-side, wrapt in contemplation, he was met by a grave old man of a venerable aspect; who, falling into discourse with him, turned the conversation by degrees from the excellence of Platonism to the merits of Christianity, and thus created in Justin an ardent curiosity to enquire into that religion; in consequence of which enquiry he was converted about A. D. 132. On his embracing Christianity he quitted neither the profession nor the habit of a philosopher; but, a persecution breaking out under Antoninus, he composed An Apology for the Christians; and afterwards presented another to Marcus Aurelius, in which he vindicated the innocence and holiness of the Christian religion against Crescens, a Cynic philosopher, and other calumniators. He did honor to Christianity by his learning and the purity of his manners; and suffered martyrdom in 167. Besides his two Apologies, there are still extant his Dialogue with Trypho, a Jew; two treatises addressed to the Gentiles, and another on The Unity of God. Other works are also ascribed to him. The best editions of St. Justin are those of Robert Stephens, in 1551 and 1571, in Greek and Latin; that of Morel, in Greek and Latin, in 1656; and that of Don Prudentius Morandus, a learned Benedictine, in 1742, in folio. His style is plain, and void of all ornament.

JUSTINGEN, a town of Suabia, capital of a lordship, purchased in 1715 by the duke of Wurtemburgh, for 300,000 florins. It gives him a seat and vote at the imperial diets. It is sixteen miles N. N. E. of Buchau, and thirty south-east of Stuttgart.

JUSTINIAN I., son of Justin I., was made Cesar and Augustus in 527, and soon after emperor. He conquered the Persians by Belisarius his general, and exterminated the Vandals; regained Africa; subdued the Goths in Italy; defeated the Moors; and restored the Roman empire to its primitive glory. He appointed ten able lawyers to collect the whole Roman laws into one body, entitled Codex Justinianus, or the Justinian Code; which may be called the statute law, as containing the rescripts of the emperors; and reduced the decisions of the judges and other magistrates, which were scattered in 2000 volumes, to the limits of fifty, which were entitled Digests or Pandects, and completed in 535. He also ordered four books of Institutes to be drawn up, containing an abstract of all the ancient laws; and in 541 compiled an abstract of the modern laws under the title of Novella, or the New Code. He died in 565, aged eighty-three, in the thirty-ninth year of his reign. He founded the church of Santa Sophia at Constantinople, which is esteemed a masterpiece of architecture. See WESTERN EMPIRE.

JUSTINIANI (Augustin), bishop of Nebo, one of the most learned men of his time, was descended of a noble family, and born at Genoa in 1480. He assisted at the fifth council of Lateran, where he opposed some articles of the concordat between France and the court of Rome. Francis I. of France made him his almoner; and he was for five years regius professor of Hebrew at Paris. He returned to Genoa in 1522, where he discharged the duties of his episcopal office till his death; and learning and piety flourished in his diocese. He perished at sea, in his passage from Genoa to Nubio, in 1536. He composed several pieces, the most considerable of which is, *Psalterium Hebraicum, Graecum, Arabicum, et Chaldaeum, cum tribus Latinis interpretationibus et glossis.* He is also said to have translated Maimonides's *More Nevochim.*

JUSTINIANI (Bernard), was born at Venice in 1408. He obtained the senator's robe at the age of nineteen, served the republic in several embassies, and was elected procurator of St. Mark in 1474. He was a learned man, and wrote the *History of Venice*, with some other works of considerable merit; and died in 1498.

JUSTINUS (Marcus Junianus), a celebrated historian, who lived, according to the most probable opinion, in the second century, under Antoninus Pius. He wrote, in elegant Latin, *An Alridgment of the History of Trogus Pompeius*; containing the actions of almost all nations, from Ninus the founder of the Assyrian empire to Augustus. The original work of Trogus, to the regret of the learned, is lost. The best editions of Justinus are *Ad usum Delphini*, in 4to.; and *Cum notis Variorum et Gronovii*, in 8vo.

JUSTLE, *v. n. & v. a.* Fr. *jouster*. To encounter, or rush against each other; to push, drive, or force: commonly used with the particle *out* or *off*.

The chariots shall rage in the streets, they shall
justle one against another in the broad ways.

Nah. ii. 4.

While injury of chance
Puts back leave taking, justles roughly by
All time of pause, rudely beguiles our lips
Of all rejoinder.

Shakspeare. Troilus and Cressida.

Private and single abilities should not *justle out* and deprive the church of the joint abilities of many learned and godly men.

King Charles.

Argo passed
Through Bosphorus, betwixt the justling rocks.

Milton.

Late the clouds
Justling, or pushed with winds, rude in their shock
Tire the slant lightning.

Id. Paradise Lost.

Many excellent strains have been *justled off* by
their intrusions.

Browne's Vulgar Errors.

Not one starry spark,
But gods met gods, and justle in the dark.

Lee.

It is not to be imagined that the incongruous alphabets and abuses of writing can ever be *justled out* of their possession of all libraries.

Holder.

Courtiers therefore *justle* for a grant:
And, when they break their friendship, plead their
want.

Dryden.

The more remote run stumbling with their fear,
And, in the dark, men *justle* as they meet.

Id.

When elephant 'gainst elephant did rear
His trunk, and castles *justled* in the air,
My sword the way to victory had shewn.

Id.

The surly commons shall respect deny,
And *justle* peerage out with property.

Id.

Absent good, though thought on, not making any part of unhappiness in its absence, is *justled out* to make way for the removal of those uncaresnesses we feel.

Locke.

We *justled* one another *out*, and disputed the post for a great while.

Addison's Guardian.

I thought the dean had been too proud
To *justle* here among a crowd.

Swift.

JUSTLY, *adv.* { Uprightly; honestly; pro-
Just'ress, *n. s.* } perly; exactly: justness, reasonableness; equity; accuracy; propriety of adjustment: justness is properly applied to things, and justice to persons; though we now say the justice of a cause, as well as of a judge.

It maketh unto the right of the war against him, whose success useth commonly to be according to the *justness* of the cause for which it is made.

Spenser on Ireland.

We may not think the *justness* of each act
Such and no other than event doth form it.

Shakspeare.

With ignominy scourged, in open sight :
Next view the Tarquin kings ; the avenging sword
Of Brutus *justly* drawn, and Rome restored.

Dryden.

Their artful hands instruct the lute to sound,
Their feet assist their hands, and *justly* beat the ground.

Id.

I value the satisfaction I had in seeing it represented with all the *justness* and gracefulness of action.

Id.

Nothing can *justly* be despised that cannot *justly* be blamed: where there is no choice, there can be no blame.

South.

I appeal to the people, was the usual saying of a very excellent dramatick poet, when he had any dispute with particular persons about the *justness* and regularity of his productions.

Addison.

The goddess, studious of her Grecians' fate,
Taught them in laws and letters to excel,
In acting *justly*, and in writing well.

Prior.

They thought him, and they *justly* thought him, one

Sent to do more than he appeared to have done.

Couper. Conversation.

Tears flow, and cease not, where the good man lies,

Till all who knew him follow to the skies.
Tears therefore fall where Chester's ashes sleep ;
Him wife, friends, brothers, children, servants weep ;
And *justly*, few shall ever him transcend

As husband, parent, brother, master, friend.

Couper. Epitaph on Mr. Chester

JUSTUS (Jonas), a Protestant divine, born at North Hausen, in Thuringia, in 1493. He was one of Luther's most zealous disciples. He contracted a strict friendship with Melancthon; be-

came principal of the college of Wittemburg, and afterwards dean of the university of that city. He wrote a treatise in favor of the marriage of priests, and other works; and died in 1555.

JUT, *v. n.* { A word supposed to be cor-
JUT'TY, *v. a.* { rupted from jet, perhaps from shoot. To push or shoot into prominences; to come out beyond the main bulk.

Then lend the eye a terrible aspect;
Let it pry through the portage of the head
Like a brass cannon: let the brow o'erwhelm it
As fearfully as doth a galled rock
O'erhang and *jutty* his confounded base,
Swilled with the wild and wasteful ocean.

Shakspeare.

Insulting tyranny begins to *jut*
Upon the innocent and awless throne. *Id.*
All the projected or *jutting* parts should be very
moderate, especially the cornices of the lower orders.
Watton.

The land, if not restrained, had met your way,
Projected out a neck, and jutted to the sea.

Dryden.

Broke by the *jutting* land on either side;
In double streams the briny waters glide. *Id.*
It seems to *jut* out of the structure of the poem,
and be independent of it. *Broome.*

Day after day
Sad on the *jutting* eminence he sits
And views the main that ever toils below.

Thomson.

JUTES, in ancient history, were a tribe of the Getæ, the conquerors of various countries: the Jutes inhabited the extremity of the Cimbriæ Chersonesus, which from them is still called Jutland.

JUTLAND, a peninsula of northern Europe, belonging to Denmark, the ancient Cimbria, and Chersonesus Cimbricus, bounded on the east by the Scaggerac, the Little Belt, and the Baltic; on the south by the duchy of Holstein; and on the west and north by the Northern Sea. It is about 200 miles long, and ninety-five broad, and generally divided into North Jutland or Jutland Proper, and South Jutland, also called the duchy of SLESWICK, which see.

JUTLAND, or North JUTLAND, bounded on all sides by the sea, except towards the south, where its boundary is the duchy of Sleswick, is about 150 miles long, and from sixty to eighty broad. Of all the Danish territories it is the largest, and yields the greatest revenue. The middle part consists of heaths and moors, intermixed with arable land; but these afford good pasture for oxen, sheep, and goats. The other parts, of greater extent, are very fertile, and yield large crops of grain, annually exported to Sweden, Norway, and Holland. The inhabitants also derive considerable trade from their oxen, horses, and hogs. Jutland is commonly called ‘the land of bacon and rye bread.’ It is also well supplied with fresh water and sea fish. On the east it has fine woods of oak, beech, fir, &c. but on the west side the inhabitants are obliged to use their heath and turf for fuel. Jutland abounds likewise with game. The air is cold, especially towards the North Sea: but the inhabitants are

vigorous and robust, and seem to have gained a great degree of practical freedom. Many of them have freeholds, for which they pay a small acknowledgment to the lord of the manor. The Danish language is spoken here with a particular accent. North Jutland is composed of four Lutheran dioceses, or governments, each of which has its bishop and general-governor; and they derive their names from those of their chief cities, viz. Aalbourg, Wibourg, Arruus, and Riven. The population of these four dioceses is stated by Mr. Coxe at 358,136 persons. Jutland yields tripoly and fuller’s earth, alum and vitriol.

JUTURNA, in fabulous history, a sister of Turnus, king of the Rutuli. She was ravished by Jupiter, made immortal by him, and afterwards turned into a fountain, the waters of which cured all diseases, and were used in the sacrifices of Vesta.

JUVENAL (Decius Junius), the celebrated Roman satirist, was born about the beginning of the emperor Claudian’s reign, at Aquinum in Campania. He was educated for an orator, studied under Quintilian, and made a distinguished figure at the bar in Rome, where he acquired a considerable fortune before he commenced poet. It is said he was above forty years of age when he recited his first essay to a small audience of his friends; but, being encouraged by their applause, he ventured a larger publication, which reaching the ears of Paris, Domitian’s favorite at that time, though but a pantomime player, whom our satirist had severely insulted, that minion complained to the emperor, who banished him by giving him the command of a cohort in the army, at Pentapolis. After Domitian’s death Juvenal returned to Rome, sufficiently cautioned against attacking living characters and people in power under arbitrary princes; and therefore he thus concludes his first satire:—

Experiā quid concedatur in illos
Quorum Flaminīa tegitur ciniis atque Latini.

‘I will try what liberties I may be allowed with those whose ashes lie under the Flaminian and Latin ways,’ along each side of which the Romans of the first rank used to be buried. It is believed that he lived till the reign of Adrian in 128. There are still extant sixteen of his satires, in which he discovers great wit, strength, and keenness, in his language: but his style is not perfectly natural; and the obscenities with which these satires abound render them improper to be put into the hands of youth.

JUVENAL DE CAVCAS (Felix), an ingenious writer, born at Pezena in 1679. He wrote, 1. The Principles of History. 2. Essays on the History of the Sciences, the Belles Lettres, and the Arts. He died in 1760.

JUVENILE, *adj.* { Lat. *juvenilis*. Young
JUVENIL'ITY, *n. s.* { youthful; youthfulness
light and careless in air or manner.

Learning hath its infancy when it is almost childish; then its youth, when it is luxuriant and *juvenile*; then its strength of years, when it is solid;

and lastly, its old age, when it waxeth dry and exhausts.

Bacon's Essays.

Customary strains and abstracted *juventilities* have made it difficult to commend and speak credibly in dedications.

Glanville.

The restoration of grey hairs to *juvenility*, and renewing exhausted marrow, may be effected without a miracle.

Id.

JUVENTAS, in Roman mythology, the goddess who presided over youth. This goddess was long honored in the Capitol, where Servius Tullius erected her statue. Near the chapel of Minerva there was an altar to Juventas.

JUXON (Dr. William), was born at Chichester in 1682, and elected into St. John's College, Oxford, of which he became president. King Charles I. made him bishop of London; and in 1635 lord high treasurer of England. The whole nation, and especially the nobility, were greatly offended at this high office being given to a clergyman; but his conduct soon extinguished all clamor. On the 17th of May 1641, however, he prudently resigned the staff, to avoid the storm which then threatened the court and the clergy. During the civil wars he resided at his palace at Fulham, where his meek, inoffensive, and gentle behaviour, though he continued steady in his loyalty to the king, procured him the respect even of the opposite party. In 1648 he waited on king Charles in the treaty of the Isle of Wight; and, by his particular desire, attended him at Westminster, after the commencement of his trial. He likewise attended him on the scaffold, where the king taking off his cloak and George, gave him the latter. After the execution the bishop took care of the body, which he accompanied to the royal chapel at Windsor, but was prevented performing the last offices by colonel Whicheot, governor of the castle. He was now thrown into prison for refusing to disclose the particulars of his last conversations with the king; but soon released, and continued in the quiet possession of Fulham palace till 1649, when he was deprived; having been spared longer than any of his brethren. He then retired to his own estate in Gloucestershire, where he lived in privacy till the Restoration, when he was presented to the see of Canterbury; and, in the short time he enjoyed it, expended in buildings and reparations at Lambeth Palace and Croydon House near £15,000. He died in 1663, having bequeathed £7000 to St. John's College, and to other charitable uses near £5000. He published A Sermon on Luke xviii. 31, and Some Considerations upon the Act of Uniformity.

JUXTAPOSITION, *n. s.* Fr. *juxtaposition*; Lat. *juxta* and *positio*. Apposition; the state of being placed by each other.

Nor can it be a difference, that the parts of solid bodies are held together by hooks, since the coherence of these will be of difficult conception; and we must either suppose an infinite number of them holding together, or at last come to parts that are united by a mere *juxtaposition*.

Glanville.

JUXTAPOSITION is used by philosophers to denote that species of growth which is performed by the apposition of new matter to the surface

or outside of old: in which sense it stands opposed to introspection, where the growth of a body is performed by the reception of a juice within it diffused through its canals.

I'VY, *n. s.* Sax. *ipug*. A plant.

But, Troilus! thou maiest now Est and West,
Pipe in an *ivie* lefe, if that the lest.

Chaucer. Troilus and Cresseide.

I have seen them

Like boding owls, creep into tods of *ivy*
And hoot their fears to one another nightly.

Beaumont's Bona Vista.

A gown made of the finest wool;

A belt of straw, and *ivy* buds,

With coral clasps and amber studs;

And, if these pleasures may thee move,

Come live with me and be my love.

Raleigh.

Direct the clasping *ivy* where to climb.

Milton.

Wilds horrid and dark with o'ershadowing trees,
Rocks that *ivy* and briars unfold,
Scenes nature with dread and astonishment sees,
But I with a pleasure untold.

Couper. Scenes favorable to, &c.

Where the Cæsars dwelt,

And dwell the tuneless birds of night, amidst
A grove which springs through levelled battlements,
And twines its roots with the imperial hearths,
Ivy usurps the laurel's place of growth.

Byron. Manfred.

Ivy, in botany. See HEDERA.

IWAN BASILOWITZ I., surnamed the Great, czar of Muscovy, was born in 1438, and succeeded his father in 1462. Russia was then divided into a number of petty principalities, some of them nominally subject to the czar, or grand duke; and tributary, together with himself, to the Mogul Tartars. Iwan rendered the petty chiefs dependent on his own power, and emancipated himself from the yoke of the Moguls. During his reign ambassadors arrived at Moscow from the emperor of Germany, the pope, the grand seignior, and most of the other European powers. This prince, who is indeed considered as the founder of the Russian empire, died in 1505.

IWAN BASILOWITZ II., grandson of Iwan I., was born in 1530, and reigned from 1533 to 1584. He was an enlightened prince, but cruel and arbitrary; in a fit of passion he killed his own son. The Tartar province of Kasan was conquered by him in 1552, and that of Astracan in 1554. In 1582 he established the first printing-press at Moscow, and in his reign Thomas Chancellor, an English navigator, visited the Russian port of Archangel, when the czar sent an embassy to queen Elizabeth. The discovery of Siberia also took place in the reign of this sovereign.

IXIA, in botany, a genus of the monogynia order, and triandria class of plants: natural order sixth, ensata: cor. hexapetalous, patent, and equal: there are three stigmata, a little upright and petalous. There are several species, consisting of herbaceous, tuberous, and bulbous-rooted flowery perennials, from one to two feet high, terminated by hexapetalous flowers of dif-

U

ferent colors. They are propagated by off-ssets, which should be taken off in summer at the decay of the leaves : but, as all the plants of this genus are natives of warm climates, few of them can bear the open air of this country in winter.

IXION, in fabulous history, king of the Lapithæ, married Dia the daughter of Deionius, to whom he refused to give the customary nuptial presents. Deionius, in revenge, took from him his horses ; when Ixion, dissembling his resentment, invited his father-in-law to a feast, and made him fall through a trap-door into a burning furnace, in which he was immediately consumed. Ixion, being afterwards stung with remorse for his cruelty, went mad ; on which Jupiter, in compassion, not only forgave him, but took him up into heaven, where he had the impiety to endeavour to corrupt Juno. Jupiter, to be the better assured of his guilt, formed a cloud in the resemblance of the goddess, upon which Ixion begat the Centaurs ; but, boasting of his happiness, Jove hurled him down to Tartarus, where he lay fixed on a wheel encompassed with serpents, which turns without ceasing.

IXORA, in botany, a genus of the monogynia order, and tetrandria class of plants ; natural order forty-seventh, stellatae : cor. monopetalous, funnel-shaped, and long, superior : the stamens above the throat : the berry tetraspermous. Species twelve ; found in both East and West Indies.

JYENAGUR, or JYEPORE, a fertile and populous principality and city of Hindostan, situated between the twenty-fifth and twenty-ninth degrees of northern latitude, and in the eastern extremity of the province of Ajmeer. It may be estimated at 150 miles in length, by seventy in breadth. This territory produces sugar, cotton, tobacco, and all the grains of the East. It has also a salt-water lake, which produces large portions of that article. It contains the strong fortresses of Rantapore and Jyenagur, and under the title of Ambeer, or Abnir, is said to have existed as a state for nearly 1200 years. Its princes were, however, compelled to unite their daughters in marriage with the Mahomedan princes, and to serve in the armies of the Mogul empire. The inhabitants are of the Rajpoot tribe.

JYENAGUR, the capital, was founded in the end of the seventeenth, or beginning of the eighteenth century, by rajah Jyesing, celebrated for his encouragement of the arts and sciences. He built an observatory here, and formed a set of astronomical tables, still known by his name. This is reckoned one of the handsomest and most regu-

lar towns of India ; being chiefly built of stone : the streets, which are large and spacious, intersect each other at right angles. The fortifications are carried round the whole city, a distance of nearly four miles, and are crowned by a citadel on a steep rock. The place is a great mart for horses, and carries on a considerable traffic with all parts of India.

JYMOLD, *adj.* See GIMAL.

Their poor jades

Lob down their heads, dropping the hide and hips,
And in their pale dull mouths the *jymold* bit
Lies, foul with chewed grass, still and motionless.

Shakspeare.

JYNX, in ornithology, a genus of birds belonging to the order of picæ ; the characters of which are, that the bill is slender, round, and pointed ; the nostrils are concave and naked ; the tongue is very long, very slender, cylindric, and terminated by a hard point ; and the feet are formed for climbing. There is only one species, viz.

J. torquilla. The colors of this bird are elegantly pencilled, though its plumage is marked with the plainest kinds : a line of black and ferruginous strokes divides the top of the head and back ; the sides of the head and neck are ash-colored, and beautifully traversed with fine lines of black and reddish-brown ; the quill-feathers are dusky, but each web is marked with rust-colored spots ; the chin and breast are of a light and yellowish brown, adorned with sharp-pointed bars of black ; the tail consists of ten feathers, broad at their ends and weak, of a pale ash-color powdered with black and red, and marked with four equidistant bars of black ; the irides are of a yellowish color. The wry-neck, Mr. Pennant apprehends, is a bird of passage, appearing with us in the spring before the cuckoo. Its note is like that of the kestril, a quick repeated squeak ; its eggs are white, with a very thin shell ; it builds in the hollows of trees, making its nest of dry grass. It has a very whimsical way of turning and twisting its neck about, and bringing its head over its shoulders, whence it had its Latin name torquilla, and its English one of wry-neck : it has also the faculty of erecting the feathers of the head like those of the jay. It feeds on ants, which it very dexterously transfixes with the bony and sharp end of its tongue, and then draws them into its mouth ; and, while the female is sitting, the male has been observed to carry these insects to her. These birds inhabit Russia, Sweden, Lapland, Greece, Italy, Babylon, and Bengal.

K.

K, A letter borrowed by the English from the Greek alphabet. It has before all the vowels one invariable sound : as, keen, ken, kill. It is used after c at the end of words ; as, knock, clock, crack, back, brick, stick, pluck, check, which were written anciently with e final : as, clocke, checke, tricke. It is also in use between a vowel and the silent e final : as, cloke, broke, brake, pike, duke, eke. It likewise ends a word after a diphthong : as, look, break, shook, leek. K is silent before n ; as, knife, knee, knell.

K is the tenth letter of our alphabet, and the seventh consonant. It is formed by the voice, by a guttural expression of the breath through the mouth, together with a depression of the lower jaw and opening of the teeth. K, borrowed from the Greek kappa, was but little used among the Latins : Priscian says, it was never used except in words borrowed from the Greek. Dausquius, after Sallust, says, it was unknown to the ancient Romans.—Indeed we seldom find it in any Latin authors, excepting in the word *kalenda*, where it sometimes stands in lieu of c.—Carthage, however, is often spelt on medals with a K : SALV. AUG. ET CAES. FEL. KART. and sometimes in poetry, as in this line, which contains all the letters of the alphabet :

Gazifrequens Lybicos duxit Karthago triumphos.

See C. Lipsius observes that K was a stigma anciently marked on the foreheads of criminals with a red hot iron. The French never use k, excepting in a few terms of art, and proper names, borrowed from other countries. As an abbreviation K has various significations in old charters and diplomas ; e. g. K R. stood for chorus, K R. C. for cura civitas, K R M. for carmen, KR. AM. N. carus amicus noster, K S. chaos, K. T. capite tonsus, &c. Sometimes K alone stood for Carthage.—M. Berger observes, that a capital K, on the reverse of the medals of the eastern emperors, signified Konstantinus ; and on the Greek medals he considers it to signify ΚΟΙΑΗ ΣΥΡΙΑ, Cœlesyria. K on the ci-devant French coin denoted money coined at Bourdeaux. K as a numeral signified 250, according to the verse ; ‘K quoque ducentos et quinquaginta tenebit.’ When it had a stroke at top (K) it stood for 250,000.

KAARTA, a considerable kingdom of Western Africa, bounded on the east by Bambarra ; on the south by the Ba Woolima, which separates it from Fooladoo ; on the west by Kasson ; and on the south by Ludamar. It produces the lotus in great abundance ; and is in extent about 200 miles long, by eighty broad. Kemmoo is the capital ; but the chief fortresses are Joko and Gedingooma.

KABARDA, a territory of the Caucasus, in Asiatic Russia, extending along the southern bank of the Terek.

KABRUANG, a well cultivated island in the Eastern seas, about eighteen miles in circumference. It may seen about eighteen leagues off,

being remarkable for a peaked hill. It lies to the south-east of Salibabo Island, from which it is separated by a strait about four miles wide ; in long. 126° 30' E., lat. 3° 50' N.

KADESII, KADEX-BARNEA, or En-Mishpat, in ancient geography, a city in the wilderness of Zin, where Miriam the sister of Moses died (Num. xx. 1), and where Moses and Aaron disobeying the Lord, when they smote the rock at the waters of strife, were condemned to die without entering the promised land (xxvii. 14).

The king of Kadesh was one of the princes killed by Joshua (xii. 22). This city was given to the tribe of Judah, and was situated about eight leagues from Hebron on the south. This Kadesh appears to have been a different place from Kadesh-barnea in the wilderness of Paran.

KADMON/EI, or CADMON/EI, an ancient people of Palestine, said to dwell at the foot of mount Hermon ; which lies east with respect to Libanus, Phœnicia, and the north parts of Palestine ; called also Hevei.

KÆMPFERIA, zedoary, in botany, a genus of the monogynia order and monandria class of plants ; natural order, eighth, scitamineæ : cor sextuplicate, with three of the segments larger than the rest, patulous ; and one only bipartite.

1. K. galanga, common galangal, or long zedoary, has tuberous, thick, oblong, fleshy roots ; crowned with oval, close sitting, leaves, by pairs, four or five inches long, without foot-stalks ; and between them close sitting white flowers, with purple bottomis, growing singly.

2. K. rotunda, the round zedoary, has thick, fleshy, swelling, roundish, clustering roots, sending up spear-shaped leaves, six or eight inches long, near half as broad, on upright foot-stalks ; and between them, immediately from the roots, rise whitish flowers, tinged with green, red, yellow, and purple centres. Both these are perennial roots ; but the leaves rise annually in spring, and decay in winter. They flower in summer : each flower is of one petal, tubulous below, but plain above, and divided into six parts ; they continue three or four weeks in beauty, but are never succeeded by seeds in this country. Both these species must be potted in light rich mould, and always kept in the hot-house, giving plenty of water in summer, but more sparingly in winter. They are propagated by parting the roots in the spring, just before they begin to push forth new leaves. They are cultivated with great care by the inhabitants of Siam for the sake of the roots ; the use of which, says Kæmpfer, is to remove obstructions of the hypochondria, to warm the stomach, disperse flatulencies, and to strengthen the bowels and the whole nervous system. The root was formerly used in this country in bitter infusions ; but is now laid aside, on account of its flavor being disagreeable.

KAFFRARIA and KAFFER. See CAFERRIA.

KAHLEN-GBIRGE, a branch of the Noric Alps, commencing near Kloster-Neuberg, on the Danube, a few miles above Vienna, and extending, under a variety of names, as far as Wippach, in Carniola. It was the Mons Cetius of the ancients, which separated the provinces of Noricum from Pannonia, and includes the rugged track called the Forest of Vienna. Its basis is calcareous rock.

KAHLORE, the name of two towns in the province of Lahore, Hindostan, which belong to the Seiks.

KAIN (Henry Lewis le), a modern French actor of eminence, was born at Paris April 14th, 1728, and originally a maker of surgeons' instruments. Voltaire, struck with his talents for the stage, drew him from his shop, and gave him important advice and instruction; but never saw him perform in public. Le Kain made his debut in the character of Brutus, September 4th, 1750, while the poet was in Prussia, and succeeded admirably in exhibiting the more violent emotions of the mind. He was, however, addicted to those vicious indulgences, which destroyed his respectability and his constitution, and at length occasioned his death, by inflammation of the bowels, in 1778, at the age of forty-nine. He is said to have left behind him 100,000 crowns.

KAIRWAN, or KAIROAN, a city of Africa in the kingdom of Tunis, second only to the capital. Its name is probably derived from the extensive inland commerce by caravans, of which it is the centre. The great mosque Dr. Shaw was not allowed to enter, but was told that the pillars of granite by which it was supported were not less than 500 in number, and considers it in the great variety of its ancient materials the most magnificent structure of Northern Africa; but a single inscription could not be discovered. It is supposed to be the Vicus Augusti of the ancients, and lies in a sandy and barren district, supplied with water only by rain collected in a large pond. It often suffers severely from drought. Long. $9^{\circ} 57'$ E., lat. $35^{\circ} 36'$ N.

KAISARIEH, a city of Asia Minor, the ancient Cæsarea and capital of Cappadocia. It stands on the south side of a long fertile plain, at the foot of the high mountain called Argish. Two branches of this ridge advance a short distance into the plain, and form a small recess, in which the city stands. The houses, though built of stone, are mean in appearance; but the place is the emporium of an extensive trade with all parts of Asia Minor and Syria. Cotton is here cultivated in great quantities, and sold both as a raw material and manufactured into cloth. The inhabitants who, amount to 25,000, consist of Armenians, Greeks, and Jews. About a quarter of a mile eastward is Eski Shehr, or the Old Town, which contains a number of ruined structures, and gateways, mingled and covered with modern buildings. It is remarkable for its filth and stench. Near it is a castle, falling into decay. Long. $35^{\circ} 18'$ E., lat. $38^{\circ} 41'$ N.

KAISERSLAUTERN, or LAUTERN, a fortified town of the Bavarian province on the Rhine, in the Lower Palatinate. It has on one side a

marsh, formed by the Lauter; on the other a wood. It is the chief place of a district; and the seat of one of the three lyceums or provincial schools lately erected in the circle of the Rhine; commanding the passage of the Vosges both to Mertz and Landau. In 1792 and 1793 it was the scene of much hard fighting, and suffered severely. Inhabitants 2360. Thirty-four miles W. N. W. of Spire, and forty-two S. S. W. of Mertz.

KAJAAAGA, a kingdom of Africa, called also Gallam, bounded on the south and south-east by Bamouk, north by the Senegal, and west by Bondou and Foota Torra. Mr. Park says, the air is more pure and salubrious than at any settlement on the coast, and the surface is beautiful and picturesque. The inhabitants are called Serawoollies, or Seracolets, and carry on trade in slaves with the factors on the Gambia.

KAKETI, the most easterly and mountainous province of Georgia, now subject to Russia. It has been exposed to numerous wars; and the country is covered with ruins. The Russians, however, have lately exerted themselves to restore its population and fertility.

KAKUNDY, a town of Western Africa, near the head of the Rio Nunez, bordering on the Foukah kingdom of Foota Jallo. It was fatal to the British expedition destined to explore the Niger, both major Peddie and captain Campbell dying here. It is 160 miles north of Sierra Leone.

KALEIDOSCOPE (of Gr. καλος, beautiful, and ειδος, form or likeness), an optical instrument, the invention of Dr. Brewster of Edinburgh, which, combining mirrors in a particular manner, produces a symmetrical reflection of beautiful images, which may be varied indefinitely.

Some earlier philosophers have suggested polygonal speculins, particularly B. Porta and Kircher; but the practical application of the principle to reflectors inclined towards each other at small angles was wholly a suggestion of Dr. Brewster's. It first occurred to him in 1814, in the course of his examination into the polarisation of light. Repeating, at a later period, some experiments of Mr. Biot on that subject, and extending them to some other fluids, Dr. Brewster, for his greater convenience, placed them in a triangular trough, formed by two plates of glass, cemented together at their sides, so as to form an acute angle. The ends being closed up with plate glass, cemented to the other plates, the trough for the reception of the fluids was fixed horizontally: and his eye being now placed at one end without the trough, some of the cement which had been pressed through between the plates at the object end, appeared to be arranged in a remarkably regular and striking manner. This led him to form an instrument with view to producing this effect, which he showed, with more of the liberality of science than the prudence of this world, to several members of the Royal Society of Edinburgh. The result was, that the instrument became known in London, before he could avail himself of a patent for it; and, being simple in principle, it was at once largely manufactured.

Dr. Brewster calculates that in London and

Paris together, not less than 200,000 were sold in three months: though, out of this immense number, there was perhaps not 1000, he adds, constructed upon scientific principles, or capable of giving any thing like a correct idea of the power of the kaleidoscope; and of the millions who have witnessed its effects, there are perhaps not 100 who have any idea of the principles upon which it is constructed, and of the mode in which those effects are produced. For these principles we must refer, according to our plan, to the article OPTICS.

KALENDAR, *n. s.* Lat. *calendæ*. Now written calendar. An account of time.

A KALENDAR is a distribution of time, accommodated to the uses of life; or a table or almanac, containing the order of days, weeks, months, feasts, &c. happening throughout the year. See CHRONOLOGY, MONTH, YEAR, &c. It is called kalendar, from the word *kalendæ*, anciently written in large characters at the head of each month. See KALENS. The days in kalendars were originally divided into octoades, or eights; but afterwards, in imitation of the Jews, into hebdonades, or sevens; which custom, Scaliger observes, was not introduced among the Romans till after the time of Theodosius. There are divers kalendars, according to the different forms of the year and distributions of time established in different countries. The Jewish kalendar was fixed by rabbi Hillel about the year 360, from which time the days of their year may be reduced to those of the Julian kalendar.

The Gregorian kalendar is that which, by means of epacts, rightly disposed through the several months, determines the new and full moons, and the time of Easter, with the moveable feasts depending thereon, in the Gregorian year. The Gregorian kalendar, therefore, differs from the Julian, both in the form of the year, and in that epacts are substituted in lieu of golden numbers: for the use and disposition whereof see EPACT. Though the Gregorian kalendar is far preferable to the Julian, yet it is not without its defects. For, first, according to the Gregorian intercalation, the equino^x sometimes comes after the 21st of March as far as the 23d; and sometimes anticipates it, falling on the 19th; and the full moon, which falls on the 20th of March, is sometimes the paschal; yet not so accounted by the Gregorians. On the other hand, the Gregorians account the full moon of the 22d of March the paschal; which yet, falling before the equinox, is not paschal. In the first case, therefore, Easter is celebrated in an irregular month; in the latter there are two Easters in the same ecclesiastical year. In like manner, the cyclical computation being founded on mean full moons, which yet may precede or follow the true ones by some hours, the paschal full moon may fall on Saturday, which is yet referred by the cycle to Sunday: whence, in the first case, Easter is celebrated eight days later than it should be; in the other, it is celebrated on the very day of the full moon, with the Jews and Quartodeciman heretics; contrary to the decree of the council of Nice. Scaliger and Calvisius show other faults in the

Gregorian kalendar, arising from the negligence and inadvertency of the authors; yet this kalendar is adhered to by the Romanists throughout Europe, &c., and used wherever the Roman breviary is used.

The Roman kalendar owed its origin to Romulus; who only divided the year into ten months, making it begin in the spring, on the 1st of March; imagining the sun made his course through all the seasons in 304 days. Romulus's kalendar was reformed by Numa, who added two months more, January and February; placing them before March: so that his year consisted of 355 days, and began on the 1st of January. He chose, however, in imitation of the Greeks, to make an intercalation of 45 days, which he divided into two parts; intercalating a month of twenty-two days at the end of each two years; and, at the end of each two years more, another of twenty-three days; which month, thus interposed, he called Marcedonius, or the intercalary February. But these intercalations being ill observed by the pontiffs, to whom Numa committed the care of them, occasioned great disorders in the constitution of the year; which Cæsar, when sovereign pontiff, endeavoured to remedy. To this end, he consulted Sosigenes, a celebrated astronomer of those times; who found, that the dispensation of time in the kalendar could never be settled on any sure footing without having regard to the annual course of the sun. Accordingly, as the sun's yearly course is performed in 365 days, six hours, he reduced the year to the same number of days: the year of this correction of the kalendar was a year of confusion; they being obliged, in order to swallow up the sixty-five days that had been imprudently added, and which occasioned the confusion, to add two months besides the Marcedonius, which chanced to fall out that year: so that this year consisted of fifteen months, or 445 days. This reformation was made A. U. C. 708, and A. A. C. 42, or 43.

The Roman kalendar, called Julian, from its reformer Julius Cæsar, is disposed into quadriennial periods; whereof the first three years, which he called communes, consist of 365 days; and the fourth, bissextile, of 366; by reason of the six hours, which in four years make a day, or somewhat less, for in 134 years an intercalary day is to be retrenched. On this account pope Gregory XIII., with the advice of Clavius and Ciaconius, appointed that the hundredth year of each century should have no bissextile, excepting in each fourth century: that is, a subtraction is made of three bissextile days in the space of four centuries, by reason of the eleven minutes wanting in the six hours whereof the bissextile consists. The reformation of the kalendar, or the new style, commenced on the 4th of October 1582, when ten days were thrown out at once, so many having been introduced into the computation since the time of the council of Nice in 325, by the defect of eleven minutes.

The following table exhibits a view of the Roman Kalendar, with an account of the deities to which the several days are consecrated:—

Januarius.			Februarius.		
1	Kal.	Junoni, Jano, Jovi, Æsculapio.	1	Kal.	Lucaria. Junoni.
2	IV. Non.		2	IV. Non.	
3	III. Non.		3	III. Non.	
4	Prid. Non.		4	Prid. Non.	
5	Nonæ.		5	Nonæ.	
6	VIII. Id.		6	VIII. Id.	
7	VII. Id.		7	VII. Id.	
8	VI. Id.		8	VI. Id.	
9	V. Id.	Agonalia.	9	V. Id.	
10	IV. Id.		10	IV. Id.	
11	III. Id.	Carmentalia.	11	III. Id.	
12	Prid. Id.	Compitalia.	12	Prid. Id.	
13	Idus,	Jovi Statori.	13	Idus,	Fauni Fest. et Jov.
14	XIX. Kal. F.		14	XVI. Kal. M.	
15	XVIII. Kal.		15	XV. Kal. Lupercalia.	
16	XVII. Kal.		16	XIV. Kal.	
17	XVI. Kal.		17	XIII. Kal. Quirinalia, Fornacalia. Diis manibus sacra feralia.	
18	XV. Kal.		18	XII. Kal.	
19	XIV. Kal.		19	XI. Kal. Deæ Mutæ.	
20	XIII. Kal.		20	X. Kal. Charistia.	
21	XII. Kal.		21	IX. Kal. Terminalia.	
22	XI. Kal.		22	VIII. Kal.	
23	X. Kal.	Sementinæ feriae.	23	VII. Kal. Regifugium	
24	IX. Kal.		24	VI. Kal.	
25	VIII. Kal.		25	V. Kal.	
26	VII. Kal.		26	IV. Kal.	
27	VI. Kal.	Castori et Polluxi.	27	III. Kal. Equiria.	
28	V. Kal.		28	Prid. Kal.	
29	IV. Kal.	Equiria.			
30	III. Kal.	Paci.			
31	Prid. Kal.	Diis Penatibus.			

Martius.			Aprilis.		
1	Kal.	Matronalia Junonis Lueiniæ. Aencylia Martis.	1	Kal.	Veneri et Fortunæ virili.
2	VI. Non.		2	IV. Non.	
3	V. Non.		3	III. Non.	
4	IV. Non.		4	Prid. Non.	
5	III. Non.		5	Nonæ.	Megalesia.
6	Prid. Non. Vestæ.		6	VIII. Id.	Fortunæ publicæ. Dinæ natalis.
7	Nonæ.		7	VII. Id.	Natalis Apol.
8	VIII. Id.		8	VI. Id.	
9	VII. Id.		9	V. Id.	Cerealia, Ludi Circenses.
10	VI. Id.		10	IV. Id.	
11	V. Id.		11	III. Id.	
12	IV. Id.		12	Prid. Id.	Magna Mater Romam ad ducta.
13	III. Id.		13	Idus,	Jovi Victori, et Libertati.
14	Prid. Id.	Equiria altera.	14	XVIII. Kal. M.	
15	Idus.	Annæ Pereunnæ.	15	XVII. Kal.	Fordicidia.
16	XVII. Kal. A.		16	XVI. Kal.	
17	XVI. Kal.	Liberalia, Agonia.	17	XV. Kal.	
18	XV. Kal.		18	XIV. Kal.	Equiria in Cir. Max.
19	XIV. Kal.	Quinquatria Minervæ.	19	XIII. Kal.	
20	XIII. Kal.		20	XII. Kal.	
21	XII. Kal.		21	XI. Kal.	Palilia, Agonalia, Romæ natalis.
22	XI. Kal.		22	X. Kal.	
23	X. Kal.	Tubilustrium.	23	IX. Kal.	Vinalia. Jovi et Veneri.
24	IX. Kal.		24	VIII. Kal.	
25	VIII. Kal.	Hilaria. Matris Deûm Festa.	25	VII. Kal.	Robigalia.
26	VII. Kal.		26	VI. Kal.	Latinæ Feriae.
27	VI. Kal.		27	V. Kal.	
28	V. Kal.	Megalesia.	28	IV. Kal.	Floralia.
29	IV. Kal.		29	III. Kal.	
30	III. Kal.	Jano, Concordiæ, Saluti, Paci.	30	Prid. Kal.	Vestæ Palatine.
31	Prid. Kal.	Dianæ.			

Maius.			Junius.		
1	Kal.	Bona Deæ. Laribus præstitibus ara posita.	1	Kal.	Marti. Carnæ Deæ.
2	VI.	Non.	2	IV.	Non.
3	V.	Non.	3	III.	Non. Bellonæ.
4	IV.	Non.	4	Prid.	Non.
5	III.	Non.	5	None.	
6	Prid.	Non.	6	VIII.	Id. Sponsoris Jovis.
7	Nonæ.		7	VII.	Id. Ludi piscatorii.
8	VIII.	Id.	8	VI.	Id.
9	VII.	Id. Lemuria.	9	V.	Id. Vestæ. Asinus Coronatur.
10	VI.	Id.	10	IV.	Id. Matralia.
11	V.	Id.	11	III.	Id. Forti Fortunæ.
12	IV.	Id. Martis bisultoris.	12	Prid.	Id. Matris Matutæ.
13	III.	Id.	13	Idus,	Jovis invicti. Quinquatrus mi- nusculæ.
14	Prid.	Id.	14	XVII.	Kal. J.
15	Idus,	Mercurii natalis. Mercatorum dies festus.	15	XVII.	Kal.
16	XVII.	Kal. J.	16	XVI.	Kal.
17	XVI.	Kal.	17	XV.	Kal.
18	XV.	Kal.	18	XIV.	Kal.
19	XIV.	Kal.	19	XIII.	Kal. Minervæ in Avent.
20	XIII.	Kal.	20	XII.	Kal. Summanalia.
21	XII.	Kal. Agonalia Vejovi.	21	XI.	Kal.
22	XI.	Kal.	22	X.	Kal.
23	X.	Kal. Vulcano. Maie. Tubiluctrium.	23	IX.	Kal.
24	IX.	Kal. Regifugium Alterum.	24	VIII.	Kal. Fortis Fortunæ.
25	VIII.	Kal.	25	VII.	Kal.
26	VII.	Kal.	26	VI.	Kal.
27	VI.	Kal.	27	V.	Jovis Statoris, et Laris.
28	V.	Kal.	28	IV.	Kal.
29	IV.	Kal.	29	III.	Kal.
30	III.	Kal.	30	Prid.	Kal. Herculis et Musarum.
31	Prid.	Kal.			

Julius.			Augustus.		
1	Kal.		1	Kal.	Spei.
2	VI.	Non.	2	IV.	Non.
3	V.	Non.	3	III.	Non.
4	IV.	Non.	4	Prid.	Non.
5	III.	Non. Populifugium.	5	None.	Saluti.
6	Prid.	Non.	6	VIII.	Id.
7	Nonæ.	Caprotinæ. Ancillarum fes- tum.	7	VII.	Id.
8	VIII.	Id.	8	VI.	Id. Soli Indigeti.
9	VII.	Id.	9	V.	Id.
10	VI.	Id.	10	IV.	Id. Opi et Cereri.
11	V.	Id. Ludi Apollinares.	11	III.	Id. Herculi magno custodi.
12	IV.	Id. Fortuna muliebris.	12	Prid.	Id.
13	III.	Id.	13	Idus,	Dianæ, Vertumno.
14	Prid.	Id.	14	XIX.	Kal. S.
15	Idus,	Castoris et Pollucis.	15	XVIII.	Kal.
16	XVII.	Kal. A.	16	XVII.	Kal.
17	XVI.	Kal. Alliensis dies atra.	17	XVI.	Kal. Portumnalia.
18	XV.	Kal.	18	XV.	Kal. Consualia. Sabinarum raptus.
19	XIV.	Kal.	19	XIV.	Kal.
20	XIII.	Kal.	20	XIII.	Kal. Vinalia secunda.
21	XII.	Kal.	21	XII.	Kal. Vinalia rustica.
22	XI.	Kal.	22	XI.	Kal.
23	X.	Kal.	23	X.	Kal. Vulcanalia.
24	IX.	Kal.	24	IX.	Kal.
25	VIII.	Kal. Furinalia.	25	VIII.	Kal. Opi Consivæ.
26	VII.	Kal.	26	VII.	Kal.
27	VI.	Kal.	27	VI.	Kal.
28	V.	Kal. Neptunalia.	28	V.	Kal. Arae Victoriae.
29	IV.	Kal.	29	IV.	Kal.
30	III.	Kal.	30	III.	Kal.
31	Prid.	Kal.	31	Prid.	Kal.

September.			October.			
1	Kal.	Vulcani tutela Septemb.	1	Kal.	Martis tutela Oct.	
2	IV. Non.		2	VI. Non.		
3	III. Non.	Dionysia.	3	V. Non.		
4	Prid. Non.		4	IV. Non.		
5	Nonae.		5	III. Non.		
6	VIII. Id.	Erebo.	6	Prid. Non.		
7	VII. Id.		7	Nonae.		
8	VI. Id.		8	VIII. Id.	Pyænepsia Apoll.	
9	V. Id.		9	VII. Id.		
10	IV. Id.		10	VI. Id.	Oscophoria.	
11	III. Id.		11	V. Id.		
12	Prid. Id.		12	IV. Id.	Augustalia.	
13	Idus,	Jovi Capitolii Dedic. Prætor Clavum pangit	13	III. Id.	Fontinalia.	
14	XVIII. Kal.		14	Prid. Id.		
15	XVII. Kal.	Ludi Romani sive Magni per 4 dies.	15	Idus,	Mercurio Mercatores sacr.	
16	XVI. Kal.		16	XVII. Kal.		
17	XV. Kal.		17	XVI. Kal.		
18	XIV. Kal.		18	XV. Kal.	Jovi Liberatori. ¹	
19	XIII. Kal.		19	XIV. Kal.	Armillistrium.	
20	XII. Kal.	Romuli natalis.	20	XIII. Kal.		
21	XI. Kal.		21	XII. Kal.		
22	X. Kal.		22	XI. Kal.		
23	IX. Kal.		23	X. Kal.	Hoc mense Libero sacr. fiebat.	
24	VIII. Kal.		24	IX. Kal.		
25	VII. Kal.	Veneri. Saturno. Maniæ.	25	VIII. Kal.	Vertumni feriae.	
26	VI. Kal.		26	VII. Kal.		
27	V. Kal.	Fortunæ reduci.	27	VI. Kal.	Ludi Victoriae.	
28	IV. Kal.		28	V. Kal.		
29	III. Kal.		29	IV. Kal.		
30	Prid. Kal.	Meditrinalia, Epulum Mi- nervæ.	30	III. Kal.		
	November.			December.		
1	Kal.	Dianæ tutela hic mensis.	1	Kal.	Fortunæ Muliebris festum.	
2	IV. Non.		2	IV. Non.		
3	III. Non.		3	III. Non.	Neptuno et Minervæ.	
4	Prid. Non.	Jovis epulum.	4	Prid. Non.		
5	Nonae.	Neptunalia.	5	Nonae.	Faunalia.	
6	VIII. Id.		6	VIII. Id.		
7	VII. Id.		7	VII. Id.	Junoni Jugali.	
8	VI. Id.		8	VI. Id.		
9	V. Id.		9	V. Id.		
10	IV. Id.		10	IV. Id.	Agonalia.	
11	III. Id.	Maria clauduntur usque ad VI. Id. Mart.	11	III. Id.	Aleyonii dies.	
12	Prid. Id.		12	Prid. Id.	Equiria.	
13	Idus,	Pithægia, Lectisternia.	13	Idus,	¹	
14	XVIII. Kal.		14	XIX. Kal.	Brumalia.	
15	XVII. Kal.	Ludi Plebeii.	15	XVIII. Kal.		
16	XVI. Kal.		16	XVII. Kal.		
17	XV. Kal.		17	XVI. Kal.	Saturnalia.	
18	XIV. Kal.		18	XV. Kal.		
19	XIII. Kal.	Cæna Pontificum in honorem Magnæ Matris.	19	XIV. Kal.	Opalia.	
20	XII. Kal.		20	XIII. Kal.	Sigillaria.	
21	XI. Kal.		21	XII. Kal.	Angeronalia. Herculi et Cereri.	
22	X. Kal.	Plutoni et Proserpinæ.	22	XI. Kal.	Feriæ dict. Compitalia.	
23	IX. Kal.		23	X. Kal.	Feriæ Jovis. Laurentinalia.	
24	VIII. Kal.	Brumalia.	24	IX. Kal.	Juvenalis dies.	
25	VII. Kal.		25	VIII. Kal.		
26	VI. Kal.		26	VII. Kal.		
27	V. Kal.		27	VI. Kal.		
28	IV. Kal.		28	V. Kal.	Hic mensis Saturno sacer.	
29	III. Kal.		29	IV. Kal.	Vestæ verò tutela.	
30	Prid. Kal.		30	III. Kal.		
			31	Prid. Kal.		

KALENDAR is also applied to divers other compositions respecting the twelve months of the year. In this sense Spencer has given the Shepherd's Kalendar; Evelyn and Miller the Gardner's Kalendar, &c.

KALENDAR, kalendarium, originally denoted, among the Romans, a book containing an account of moneys at interest, which became due on the kalends of January, the usual time when the Roman usurers let out their moneys.

KALENDARIUM FESTUM, a festival among the ancient Romans, held on the kalends of January, or new year's day. The Christians retained much of the ceremony and wantonness of this feast, which for many ages was celebrated by the clergy, under the names of festum kalendarium, or hypodiacaornum, or stultorum, that is, the feast of fools; sometimes also libertas demembra. The people met masked in the church; and in a ludicrous way proceeded to the election of a mock pope, or bishop, who exercised a jurisdiction over them suitable to the festivity of the occasion. Fathers, councils, and popes, long labored to restrain this license to little purpose. The feast of the kalends was in use as late as the close of the fifteenth century.

KAL'ENDS, n.s. The first day of every month amongst the Romans; more correctly written Calends.

And wotest well that *kalender* is she
To any woman that wol lover be
For she taught all the craft of trewe living.
Chaucer. Prologue to the Legende of Good Women.

This se, clepe I the tempestuous matere
Of depe disaire, that Troilus was in;
But now of hope the *kalends* begin.
Id. Troilus and Cresseide.

Let this pernicious hour
. Stand as accursed in the *kalender*.
Shakspeare. Macbeth.

KALEND'S, KALEND'E, OR CALEND'S, in the Roman chronology, the first day of every month. The word is formed from καλεω, I call or proclaim; because, before the publication of the Roman fasti, it was an office of the pontifices to watch the appearance of the new moon, and give notice thereof to the rex sacrificulus; upon which a sacrifice being offered, the pontiff summoned the people together in the Capitol, and there with a loud voice proclaimed the number of kalends, or the day whereon the nones would be; which he did by repeating this formula as often as there were days of kalends, Calo Juno Novella. Whence the name calendaræ, from calo, calare. This is Varro's account. Others derive the appellation hence, that the people being convened on this day, the pontifex proclaimed the several feasts or holidays in the month; a custom which continued till A.U.C. 450, when C. Flavius, the curule adile, ordered the fasti or kalendar to be set up in public places, that every body might know the difference of times, and the return of the festivals. The kalends were reckoned backwards, or in a retrograde order. Thus, e.g. the first of May being the kalends of May, the last or the 30th of April was the pridie kalendarum, or 2d of the kalends of May; the 29th of April, the 3d of the kalends,

or before the kalends; and so back to the 13th, where the ides commence: which are likewise numbered invertedly to the fifth, where the nones begin; which are numbered after the same manner to the first day of the month, which is the kalends of April. See IDES and NONES. The rules of computation by kalends, nones, and ides, are contained in the following verses:

Prima dies incnisus ejusque est dicta kalenda.
Sex Maius nonas, October, Julius, et Mars;
Quatuor at reliqui: habet idus quilibet octo.
Inde dies reliquæ omnes dic esse kalendas;
Quas retro numerans dices a mense sequente.

KALEND'S are also used in church history to denote conferences anciently held by the clergy of each deanery, on the first day of every month, concerning their duty and conduct, especially with regard to the imposition of penance.

KALEND'S OF JANUARY, in Roman antiquity, a solemn festival consecrated to Juno and Janus; wherein the Romans offered vows and sacrifices to those deities, and exchanged presents among themselves as a token of friendship. But it was a melancholy day to debtors, who were then obliged to pay their interest, &c. Hence Horace calls it tristes kalenda.

KA'L'I, n.s. An Arabic word. Sea-weed, of the ashes of which glass was made; whence the word alkali.

The ashes of the weed *kali* are sold to the Venetians for their glass works.
Bacon.

KALM (Peter), a celebrated naturalist, and pupil of Linnæus. He was a native of Finland, and was born in the year 1715. Having imbibed a taste for the study of natural history, he pursued his inclination with much zeal and industry. His first researches were rewarded by the discovery of many new plants in Sweden, of which he gave some account to the botanical world between the years 1742 and 1746. He was particularly anxious to explore the properties of plants, both with respect to their uses in medicine, and in the useful arts; so that planting and agriculture occupied some portion of his attention. His reputation as a naturalist caused him to be appointed professor at Abo, and in October, 1747, he set out upon his travels, sailing from Gottenburg for America; but on account of a violent hurricane was obliged to take shelter in a port of Norway, whence he could not depart till the ensuing February, when he proceeded immediately for London. From hence he went to North America, as we learn from his book; and, having spent two or three years in exploring whatever was worthy of observation in that country, he returned to his professorship at Abo in 1751. The expenses of this undertaking appear to have exceeded what was allowed him by the Academy of Sciences, so that our author was obliged to live rather penitulously upon his return. Yet he found means to cultivate, in a small garden of his own, several hundred plants, for the use of the university, as there was no public botanical garden at Abo.

His discoveries in botany very materially enriched the Species Plantarum of his great master, and the Linnaean Herbarium abounds with speci-

mens brought home by him, distinguished by the letter K. Haller enumerates a long list of tracts published by Kalm, and his inaugural dissertation appeared in the Amœnitates Academicæ of Linnaeus. He was originally intended for the ecclesiastical profession, but was drawn aside from this pursuit by attending the lectures of Linnaeus on natural history, given in the university of Upsal. Indeed, it was through the recommendation of Linnaeus that professor Kalm was fixed upon to undertake the voyage to North America. He afterwards made, at his own expense, a very extensive tour into Russia, the history of which never appeared in print, but which is supposed to have furnished considerable matter for the work of a Swedish writer, who published a book of travels in that kingdom. Kalm was a member of the Royal Swedish Academy of Sciences, and departed this life in the year 1779, aged sixty-four.

KALMIA, in botany, a genus of the monogynia order, and decandria class of plants; natural order eighteenth, bicornes: CAL. quinquepartite: cor. salver-shaped, formed with five nectariferous horns on the under or outer side; CAP. quinquelocular. Of this genus there are two species, viz.

1. K. angustifolia, which rises to about sixteen feet, producing ever-green leaves, in shape like the lauro-cerasus, but small, and of a shining dark green. The flowers grow in clusters, the buds of which appear in autumn wrapped up in a conic scaly perianthium, on which is lodged a viscous matter, which protects them from the severe cold in winter. These buds, dilating in the following spring, break forth into twenty or more monopetalous flowers, divided into five segments, and set singly on pedicles half an inch long. These flowers, when blown, appear white: but on a near view are of a faint bluish color, which, as the flower decays, grow paler. One of the five petals is longer and more concave than the rest, and is blended with purple, green, and yellow specks, being a viscous matter on the extremities of very fine hairs. The convex side of the same petal is also speckled with yellowish green. The point rises from the centre of the flower, and has its head adorned with scarlet, and surrounded by ten stamens, whereof three are long and seven short, whose farina issues out at a small round hole at its top. This elegant tree adorns the western and remote parts of Pennsylvania, always growing in the most sterile soil, or on the rocky declivities of hills and river banks, in shady moist places.

3. K. latifolia, a most beautiful shrub, rises usually to five or six feet, and sometimes twice that height in its native places. The stems of some are as big as the small of a man's leg, and covered with a brown rough bark. The wood is very close grained, heavy, and hard like box. The limbs in general are crooked, and grow irregular; but are thickly clothed with stiff smooth leaves of a shining bright green. The flowers grow in bunches on the tops of the branches to foot-stalks of three inches long: they are white, stained with purplish-red, consisting of one leaf in form of a cup, divided at the verge into five sections; in the middle is a

stylus and twelve stamina; which, when the flower first opens, appear lying close to the sides of the cup at equal distances, their apices being lodged in ten little hollow cells, which, being prominent on the outside, appear as so many little tubercles. The flowers are succeeded by small round capsules; which when ripe open in five parts, and discharge their small dust like seeds. This species is a native of Carolina, Virginia, and other parts of the northern continent of America; yet it is not common, but found only in particular places; it grows on rocks hanging over rivulets and running streams, and on the sides of barren hills. It blossoms in May, and continues in flower the greatest part of the summer.

KALMUCS, a tribe of Tartars, called also Eluths, inhabiting the larger half of what the Europeans call Western Tartary. See TARTARY. They are in general, says professor Pallas, of a middle size, and it is even rare to see among them a person that is tall; the women especially are of low stature, and have very agreeable features. Their limbs are neatly turned, and very few have any defects contracted in infancy. Their education, being left solely to nature, procures for them a well formed body and sound constitution. Their skin is pretty fair, especially when young; but the lower sort allow their male children to go quite naked, both in the heat of the sun and in the smoky atmosphere of their felt huts; the men too sleep naked, covered only with their drawers; and thus they acquire that yellowish-brown color which characterises them. The women, on the contrary, have a very delicate complexion; among those of a certain rank are found some with the most beautiful faces, the whiteness of which is set off by the fine black of their hair: and in this as well as in their features they perfectly resemble the figures in Chinese paintings. The physiognomy of the Kalmucs is peculiar. Strangers are made to believe that it is frightfully deformed; and, though indeed there are very ugly men to be found, yet, in general, their countenance has an openness that bespeaks a mild, frank, and social disposition. In many it is of a roundish shape, and exceedingly agreeable; among the women some would be thought beauties even in those European cities where the taste is most scrupulous. The characteristic features of a Kalmuc or Mongul countenance are the following:—the interior angle of the eye is placed obliquely downwards towards the nose, and is acute and fleshy; the eye-brows are black, narrow, and much arched; the nose is of a structure quite singular, being generally flat and broken towards the forehead; the cheek-bone is high, the head and face very round; the eye is dark, the lips thick and fleshy, the chin short, and the teeth exceeding white, continuing so to old age; the ears are of an enormous size, standing out from the head. These characters are more or less visible in each individual; but the person that possesses them all in the highest degree is considered as the most beautifully formed. Among all the Mongul nations the men have much less beard than in our European countries, and among the Tartars it appears much later. The Kalmucs

have most of it; and yet even with them the beard is very scanty and thin, and few have much hair on any other part of the body. They enjoy the bodily senses in the greatest perfection. They find the subtlety of their sense of smell very useful in their military expeditions; by it they perceive at a great distance the smoke of a fire, or the smell of a camp. Many of them can tell by applying the nose to the hole of a fox, or any other quadruped, if the animal be within or not. They hear at a great distance the trampling of horses, the noise of an enemy, of a flock of sheep, or strayed cattle; they have only to stretch themselves on the ground, and to apply their ear close to the turf. But nothing is more astonishing than the acuteness of their sight, and the extraordinary distance at which they often perceive very minute objects, such as the dust raised by cattle or horses, and this from places very little elevated, in immense level deserts, though the particular inequalities of the surface, and the vapors which in fine weather are seen to undulate over the soil in great heats, considerably increase the difficulty. They are also accustomed to trace the print of a foot in these deserts by the sight alone. The Kalmucs possess many good qualities, which give them a very great superiority over the wandering Tartars. A certain natural sagacity, a social disposition, hospitality, eagerness to oblige, fidelity to their chiefs, much curiosity, and a certain vivacity accompanied with good humor, which hardly ever forsakes even the most wretched among them, form the fair side of their character. On the other hand, they are careless, superficial, and want true courage; they are credulous, and yet cunning and distrustful; and they have a great inclination, authorised by custom, for drunkenness and debauchery. They are less indolent than most other Asiatics. Those among them who exercise any trade, or who hire themselves to the Russians for labor or for fishing, are very assiduous and indefatigable. They sleep but little, going to rest late and rising with the sun. But their extreme dirtiness can neither be disguised nor justified, and proceeds much more from their education. With regard to their intellectual faculties, notwithstanding their want of instruction and information, they possess good natural parts, an excellent memory, and a strong desire to learn. They acquire the Russian language with facility, and pronounce it well; in which last article they very much surpass the Chinese. Though generally of a sanguine and choleric temperament, they live more amicably together than could be expected in a people that lead so independent a life. They seldom come to blows even over their cups, and their quarrels are hardly ever bloody. A murder very rarely happens, though their anger has something in it exceedingly fierce. The Kalmucs are very affable; and of so social a disposition, that they will go several miles to salute a traveller, and to enquire into the object of his journey. When a troop of Kalmucs perceive any person at a distance, it is customary for them to detach one of their number to the next eminence, whence he makes a signal with his cap for the person to draw near; if this

signal is not obeyed, the person is considered as an enemy or a robber, and is often pursued as such. They enter willingly into friendships; but these connexions are not quite disinterested; for to give and to receive presents are with them essential articles. A mere trifle, however, is sufficient to induce them to do you all manner of service; and they are never ungrateful as far as they are able. Adversity cannot deprive them of courage, nor alter their good humor. A Kalmuc will never beg if he be in the extremest misery, but rather endeavour to acquire a subsistence by labor, or even by robbery. But they are very hospitable. A Kalmuc provided with a horse, arms, and equipage, may ramble through the country for months together, without taking with him either money or provisions. Wherever he comes he finds friends, from whom he meets with the kindest reception, and is entertained in the best manner their circumstances afford. His wants are supplied with the most affectionate cordiality. Every stranger, of whatsoever nation, is well received by a Kalmuc; and he may depend upon having his effects in the greatest security the moment he has put himself under the protection of his host: for to rob a guest is considered by the Kalmucs as the worst of crimes. When the master of the house sits down to meat, in company with others of inferior rank, he begins indeed by serving himself and his family, but whatever remains is distributed among all present. When any one receives a present of meat or drink, he divides it faithfully with his companions, even though of inferior rank. But they are much more niggardly of their other effects, and especially of their cattle, and do not willingly give these away, unless a friend has accidentally suffered the loss of his flocks, when he is sure to be most willingly assisted. Perhaps too it may be related, as an article of their hospitality, that they abandon their wives to their friends with the greatest facility, and in general are very little inclined to jealousy. Their robberies are never committed upon their equals, and even the greater part of the rapine exercised on other tribes is founded on hatred or national quarrels; neither do they willingly attempt this by open force, but prefer the machinations of cunning. It must also be confessed, that it is only those that live with princes, and in camps where these hold their courts, or their priests, that are most addicted to these practices; while the common people, satisfied with the pleasures of the pastoral life, spend their days in innocent simplicity, and never attack the property of another till forced by necessity, or led by their superiors, who show them the example. The Kalmucs are very faithful to their princes; they endure every sort of oppression, and yet are with difficulty induced to revolt; but, if they belong to a prince who has not become so by right of succession, they very easily rebel. They honor old age. When young men travel with such as are older than themselves, they take upon them the whole care of the cattle, as well as of the feast. They are exceedingly prudent in matters that relate to their sovereign or their nation, or which are recommended to their direction by the priests, to

whom they yield an unreserved obedience. The moveable habitations of the Kalmucs are those felt huts with a conical roof in use among all the roaming Asiatics. The truly ingenious invention of these tents was undoubtedly conceived in the eastern parts of Asia, and most probably by the Mongul nations. As they can be entirely taken to pieces, and folded in a small compass, they are very useful, and perfectly agree with the migratory life of these people, who are ignorant of the use of carriages. The frame of these huts, and the felt they are covered with, though made as light as possible, yet are a sufficient load for a camel or two oxen. But the capacity of these huts, their warmth in winter, their strength in resisting tempests and excluding rain, abundantly compensate for this inconvenience. The wood endures many years; and though the felt begins to break into holes in the second year, yet, as they do not consider it disgraceful to have them patched, they make them serve a good deal longer. The huts are in general use from the prince down to the meanest Kalmuc, differing only in size and in the embellishments within. In winter they are warm, even when heated with the dried excrements of their cattle, to which they are often obliged to have recourse, for want of other combustibles, in many places of the deserts which are destitute of wood. In summer they remove the felt to enjoy the fresh air. The master of the tent has his bed placed opposite to the door behind the fire-place. The bedsteads are low and made of wood. The rich adorn their beds with curtains, and spread carpets of felt upon the ground. When a Kalmuc possesses an idol, he places it near the head of his bed, and sets before it several small consecrated cups full of water, milk, or other food. On festivals the idol is decorated, the lamps are lighted, and perfumes burnt before it. The riches of the Kalmucs, and their whole means of subsistence, depend on their flocks, which many of them reckon by hundreds and even by thousands. A man is thought capable of living on his possessions when he is master of ten cows with a bull, eight mares with a stallion. The animals they have in greatest abundance are horses, horned cattle, and sheep. Camels, which require time and pains to rear, cannot multiply much with them: they are besides too delicate; and it is only the rich or the priests who possess any of them. Their horses are small, too weak for the draught, and too wild; but they are very swift, and support with ease the weight of a man. They may be made to gallop for several hours successively without injury; and can pass two days without drinking. They have a little hoof, but very hard; and may be used at all times without being shod. They perpetuate their species without any assistance from man. The Kalmucs castrate the greater part of their male foals, and slit their nostrils, that they may breathe more freely when they run. The stallions are never separated from their mares, that there may always be plenty of milk. Their horned cattle are of a beautiful shape, they keep more bulls than are necessary for the cows, and employ a great number of them as beasts of burden for carry-

ing their houses and furniture from place to place. They think a bull equal to fifty cows. Their sheep have large tails, exceedingly fat, and which furnish a suet as soft as butter. They have also large pendant ears, and their heads are much arched. Their wool is coarse, and the ewes seldom have horns: one ram is sufficient for 100 ewes: the wool is only fit to make felt for tents. Many sheep die during winter, and a greater number still of the early lambs; the skins of which are wrought into those fine furs so much esteemed in Russia and foreign parts. The rich Kalmucs only have camels; for they are very dear, multiply slowly, and are subject to many diseases. They are guarded with much care in winter, yet many of them die of consumptions and diarrhea, occasioned probably by the moisture of their pasture. No animal is so much tormented with insects; and they often die in summer of those they swallow in eating the leaves of the oak and birch. The meloc proscarabaeus, which covers all the plants in many places where they feed, is generally fatal to them. In spring, when they cast their hair, and which falls at once from every part of their body, they are exposed to the bite of the spider scorpion, whose wound is so venomous, that the camel dies of it in less than eight days, sometimes in three. Camels' milk is thick, unctuous, and of a saltish taste, and this last property makes the Kalmucs fond of it to tea. They use the hair for stuffing cushions, and for making ropes, pack-thread, felt, and very beautiful camlets. The camels with two bunches afford a very uneasy seat to the person who rides them; their trot is so heavy, and even their walk so rude, that he receives the most violent shocks at every step. When a Kalmuc horde intends to remove in search of fresh pasture, which in summer happens every four, six, or eight days, people are despatched to reconnoitre the best place for the khan or prince, for the lama, and for the hut containing the idols. These begin the march, and are followed by the whole troop. On these days the women paint and dress themselves in their best clothes. The Kalmucs are supplied by their flocks with milk, cheese, butter, and flesh, which are their chief articles of food. They also eat the roots and stalks of many wild plants; such as the bulbous-rooted chervil, dandelion, &c. Their ordinary drink is the milk of mares or cows. The former when fresh has a disagreeable taste of garlic; but it takes, as it grows sour, a very agreeable vinous flavor; it neither yields cream nor curd, but furnishes a very wholesome refreshing beverage, which inebriates when taken to excess. They never use new milk, nor milk or water that has not been boiled. Their milk is boiled as soon as it is taken from the animal; when cold it is poured into a large leathern bag, in which there remains as much of the old milk as is sufficient to turn the new sour. This communicates to the milk a vinous fermentation. As often as the Kalmucs procure much milk from their flocks, they intoxicate themselves with the spirituous liquor which they distil from it. Mares' milk is the most spirituous; and the quantity meant to be distilled remains twenty-four hours in summer, and three or four

days in winter, in those corrupted bags, to prepare it for the operation. Cows' milk yields one-thirtieth part, and mares' milk one-fifteenth of spirit. This liquor is limpid and very watery, and consequently does not take fire, but is capable of being long kept in glass-bottles. The rich Kalmucks increase its strength by a second distillation. These people are exceedingly fond of tea and tobacco. The former is so dear, as it comes to them from China by the way of Russia, that the poor people supply its place with various wild plants; such as liquorice, the seed of the sharp-leaved dock, and Tartarian maple, the roots of wild angelica, &c. The Kalmucks are excellent horsemen. Their arms are lances, bows and arrows, poniards, and crooked sabres; the rich have fire-arms. They wear, when at war, coats of mail, and their helmets are gilt at top. Falconry and hunting are their chief amusements. Their passion for play, especially cards, is carried to as great excess as in any nation. The greater part of their time is spent in diversions; and however miserable their manner of life may seem to us, they are quite happy with it. They cannot endure for any time the air of a close room; and think our custom of living in houses insupportable. The greatest part of them arrive at a vigorous old age; their diseases are neither frequent nor dangerous. Men of eighty or 100 years old are not uncommon; and at that age they can still endure the exercise of riding. Simple food, free air, a hardy constitution, continual exercise, and a mind free from care, are the causes of their health and longevity. It is remarkable, that a migratory people, whose manner of life seems so congenious to the natural liberty of mankind, should have been subjected from time immemorial to the unlimited authority of an absolute sovereign. Neither written records nor traditions have preserved any trace of their ever having enjoyed a state of independence. On the contrary, they say, they have always been subject to khans, whose authority has been transmitted to them by succession, and is considered as a right perfectly sacred and divine.

KALUGA, a large and fertile government of the Russian empire, formerly a province of Moscow, containing twelve districts. It is bounded by the governments of Moscow, Smolensko, Tula, and Orel, lying between $35^{\circ} 48'$ and $37^{\circ} 52'$ of E. long., and 51° and $54^{\circ} 30'$ of N. lat. Its territorial extent is 8500 square miles. The chief rivers are the Oka, the Upa, and the Schisdra. The climate is healthy, the soil is a mixture of sand and loam, and in part a black rich mould. The products are corn, hemp, and flax. It also contains iron mines; and the manufactures are important for Russia, the larger establishments being nearly fifty in number, and the capital employed being estimated at £1,000,000 sterling. The population is about 360,000 Russians of the Greek church. The exports consist of lamb-skins, Russia leather, hemp, canvas, wax, and honey.

KALUGA, the capital of the foregoing government, lies on the Oka, and has some respectable public buildings, such as the government house, the high church, &c.; but is irregularly built;

and most of the houses are of wood. The population amounts to 17,000, employed largely in manufacturing woollen, canvas, cotton, hats, paper, and leather. It is 107 miles south-west of Moscow, and 437 south-east of St. Petersburg.

KAM, *adj.* Crooked. Fr. *cam*; in Erse *kam* is squint eyed, and applied to any thing awry: clean *kam* signifies crooked, athwart, awry, across from the purpose. Ital. *a-schembo*: hence our English, *a-kimbo*. Clean *kam* is, by vulgar pronunciation, brought to *kim*, *kam*.

This is clean *kam*; merely awry.

Shakspeare.

KAMA, in Hindoo mythology, is the god of love. 'The Hindoo god,' says Sir W. Jones, 'appears evidently the same with the Grecian Eros, and the Roman Cupid; but the Indian description of his person and arms, his family, attendants, and attributes, has new and peculiar beauties. According to the mythology of Hindostan, he was the son of Maya, or the general attracting power, and married to Reti, or Affection; and his bosom friend is Vasanta, or Spring. He is represented as a beautiful youth, sometimes conversing with his mother and consort in the midst of his gardens and temples; and sometimes riding by moonlight on a parrot, or luti, and attended by dancing girls or nymphs, the former of whom bear his colors, which are a fish on a red ground. His favorite place of resort is a tract of country round Agra, and principally the plains of Matra; where Krishna also and the nine Gopea, who are clearly the Apollo and Muses of the Greeks, usually spend the night, in music and dancing. His bow of sugar-cane or flowers, with a string formed of bees, and his five arrows, each pointed with an Indian blossom of a heating quality, are equally new and beautiful. He has more than twenty names; that of Kam, or Kama, signifies desire, a sense which it also bears in ancient and modern Persian.' Kandeo is a more popular way of expressing his name. He is also called Makara-ketu, alluding to the fish in his banner, which is said to be the name of the horned shark; Makara is also the zodiacal sign Capricorn: Kundarpa, meaning love, is another of his names; and Pushpa-danva, or with a bow of flowers. Mara is another. Ananga means the incorporeal, derived from a very popular fable of Kama having been reduced to a mental essence by Siva; thus related in the Ramayana, book i. sect. 22. 'Kandarpa, the wily one, wounding Sthanu, the lord of the gods, while, with uplifted arm, he was engaged in sacred austerities, met the desuet of his crime from the eye of the great Rudra; all his members being scorched with fire, fell from his body; he was thence called Ananga, bodiless, and the place where it happened Kama, desire.' His name of Smara, the ideal, may refer to his mother Maya, meaning illusion. Madan, Madamat, and Makadamat, major Moor, from whose Hindoo Pantheon this article is taken, deems derived from a root signifying sweetness and intoxication, or pleasurable merriment, but not approaching to drunkenness. Kama is said to have been the son of Krishna and Rukmini, that is, incarnated in son of theirs.

KAMINIECK, a strong old town of Poland, the capital of Podolia, with a castle and a bishop's see. It was taken by the Turks in 1672, who restored it in 1690, after the treaty of Carlowitz. When the Russians forcibly seized part of the Polish territories, in the beginning of 1793, this fortress held out a long time, but at last surrendered. The castle is seated on a craggy rock, 110 miles west of Bracklau, and 120 south-east of Lemburg.

KAMIS, or CAMIS, in the Japanese theology, denotes deified souls of ancient heroes, who are supposed still to interest themselves in the welfare of the people over whom they anciently commanded. The principal one is Tensio Dai Sim, the common father of Japan, to whom are paid extraordinary devotions and pilgrimages.

KAMP FIGHT, in old law writers, denotes the trial of a cause by duel, or a legal combat of two champions in the field, for decision of some controversy. In this mode of trial the person challenged must either accept, or acknowledge himself guilty of the crime whereof he was accused. If it was a crime deserving death, the camp fight was for life and death: if the offence deserved only imprisonment, the camp fight was accomplished when one combatant had subdued the other, so as either to make him yield or take him prisoner. The accused had liberty to choose another to fight in his stead, but the accuser was obliged to perform it in his own person, and with equality of weapons. No women were permitted to be spectators, nor men under the age of thirteen. The priest and the people, who looked on, were engaged silently in prayer, that the victory might fall to him who had right. None might cry, shriek, or give the least sign; which in some places was executed with so much strictness, that the executioner stood ready with an axe to cut off the right hand or foot of the party that should offend herein. He that, being wounded, yielded himself, was at the other's mercy to be killed or suffered to live. But if life was granted he was declared infamous by the judge, and disabled from ever bearing arms, or riding on horseback. See BATTEL.

KAMTSCHATKA, or KAMPTCHATKA is a peninsula of an irregular elliptical figure, at the south-east extremity of Siberia. It forms a part of the Russian government of Irkoutsk, and district of Okhotsk, extending from 51° to 62° N. lat., and from 155° to 165° E. long. It is bounded west by the sea of Okhotsk; east and south by the Pacific Ocean; and north by the Koriak country.

A chain of mountains traverses this peninsula from north to south, and many traces of volcanoes have been observed. One in particular, of which remarkable eruptions are recorded in 1737, 1762 and 1767; is said to be still active. It is called the Nijni Kamtschatsk, and can be seen at a distance of 180 miles. Its eruption lasts sometimes for a fortnight, and covers the whole country for thirty miles with ashes to the depth of several inches. The climate is remarkably cold for the latitude; having but three months of imperfect summer.

Here is but one navigable river, called the Kamtschatska. It has a long north and north-east course, and falls into the Eastern Ocean in lat. $56^{\circ} 30'$ N. Vessels of 100 tons may navigate it 150 miles: but the lakes are numerous; and form, in their frozen state, the chief means of intercourse between the inhabitants.

Timber for ship-building is amongst the most valuable of the products of Kamtschatska: it principally consists of beach and dwarf pine. Here also are found the willow and cedar. Corn and vegetables seldom arrive to any perfection.

Furs and skins are the chief articles of trade: the sable is common, but not so beautiful as in the northern parts of Siberia; several varieties of the Arctic fox are also found. The bear is the most formidable wild animal: to hunt which is a chief pursuit, and to imitate his gambols the chief amusement of the Kamtschatales. The coast and rivers swarm with fish; among which the salmon, shell fish, and herrings, are all excellent. Woodcocks, snipe, grouse, and wild ducks and geese are also plentiful; the natives preserve the eggs of the last in the fat of their fish.

Beautiful shrubs are occasionally seen: such as the mountain ash, wild rose, and raspberry; there is also a variety of berries: but the most valuable common production is a wild root called sararine, which generally supplies the place of bread: to which may be added a plant called sweet grass, used in various preparations of cookery, and capable of yielding a strong distilled liquor. Sulphur abounds; and many mineral sources are found in the mountains; but no mines have been worked, except one small iron one.

The natives are considered a different race from the other inhabitants of Siberia: they are short and broad, but with slender arms and legs, black hair, round face, high cheek bones, and sunken eyes. The population has diminished under the Russian government from 12,000 or 15,000 to less than half that number. Epidemic disorders are frequent, and commit great devastations. The number of real Kamtschatales, retaining their ancient usages, do not amount to 4000, and are chiefly scattered on the northern coast. Their character is mild and hospitable, and they live together in great harmony, and to a good old age. But they are very indolent and sensual. Formerly they carried on frequent wars; never indeed engaging in regular battle, but attacking at night, and by ambuscade. Sometimes a party thus surprised would kill first their women, and then themselves, rather than fall into the hands of the enemy; for the women were generally carried off. Their arms were clubs, lances, and arrows, pointed with bone: but, since they have been subject to Russia, these wars are no longer permitted.

In winter their habitations are sunk into the ground. They dig a hole five feet deep, the breadth and length proportioned to the number of its inhabitants, and in the middle fix four or five thick wooden pillars; over these they lay balks, upon which they form the ceiling, leaving in the middle an oblong square. The fire is in one of the long sides of this square: between the pillars round the walls they make benches,

upon which each family lies separately; but on that side opposite to the fire there are no benches, it being designed for their kitchen, in which they dress their victuals. They adorn the walls with mats made of grass. The entrance is by ladders, placed near the fire hearth; so that, when they are heating their huts, the steps of the ladder become so hot, and the smoke so thick, that it is almost impossible for a stranger to go up or down.

Their summer dwellings are reared on eight or nine pillars, about two fathoms long, or more, fixed in the ground, and bound together with balks laid over them, which they cover with rods and grass: fastening spars and a round sharp roof at top, which they cover with brambles. They fasten the lower ends of the spars to the balks with ropes and thongs, and have a door on each side directly opposite to each other. The fine southern Kamtschatkans build their villages in thick woods and other places which are naturally strong, twenty versts from the sea; their summer habitations are near the mouths of the rivers.

They generally make their boats of poplar; but the Kuriles, not having any wood of their own, make use of what is thrown on shore by the sea. The northern inhabitants of Kamtschatka also make boats of the skins of sea-animals, which they sew together with whales' beards, and caulk them with moss or nettles beaten small. These boats hold two persons; one of whom sits in the prow, and the other in the stern. They push them against the stream by poles: when the current is strong they can scarcely advance two feet in ten minutes: notwithstanding which they will carry these boats, fully loaded, sometimes twenty, and, when the stream is not very strong, even thirty or forty versts. When the goods are not very heavy, they lay them upon a float or bridge resting upon two boats joined together.

Their principal food is fish, which they devour without many scruples as to cleanliness or delicacy. Having caught a fish, they begin with tearing out the gills, which they suck; they cut out, at the same time, some slices of the fish, which they devour raw; the fish being then gutted, and the entrails given to the dogs, the rest is dried, and afterwards eaten, sometimes dressed, but more commonly raw. The dish, however, which is reckoned most delicious, is salmon, dressed in a peculiar manner, called tchaouitcha. As soon as it is caught, they bury it in a hole in the ground, where it remains till it is sour; or, in fact, becomes perfectly putrid. In this state, when a European would scarcely approach, the Kamtschatale feeds upon it, as upon the most delicious morsel. Their plates are never washed, and serve both the dogs and their masters: ablation, in like manner, is never practised upon the face, hands, or any part of their persons.

Their manners are cheerful: they possess the talent of mimicry in a remarkable degree, and have songs full of gay images. They are passionately fond of dancing, and imitate the motions of the bear to the life. At a particular season the women go out to collect roots and vegetables for winter consumption. This is high holiday

with them; and they celebrate it with unbounded license.

The Kamtschatales commonly travel in sledges drawn by dogs. The animals used for this purpose are of a middling size, of various colors, though most are white, black, or gray. In travelling they make use of those that are castrated, and generally yoke four to a sledge. They drive and direct their dogs with a crooked stick about four feet long, which they sometimes adorn with different colored thongs. They drive their sledge sitting upon their right side, with their feet hanging down; for it would be looked upon as a disgrace for a man to sit down at the bottom of the sledge, or to allow any person to drive him. It is very difficult to travel in these sledges; for, unless a man keeps an exact balance, he is liable every moment, from the height and narrowness of them, to be overturned. The highest achievement is to drive standing on one foot. In a rugged road this would be very dangerous, as the dogs never stop till they come to some house, or are entangled by something upon the road: in descending any great declivity they unyoke all the dogs except one, and lead them softly down. They walk up hills; for it is as much as the dogs can do to drag up the sledge empty. After a deep snow, before it has been hardened by a frost, a man goes before upon snow shoes, whom they call brodovskika. The snow shoes are made of two thin boards, separated in the middle, bound together at the ends, and with the fore part bent a little upwards. The brodovskika, having one of these shoes upon each foot, leaves the dogs and sledge, and going on clears part of the road; then returning, leads forward the dogs and sledge so far as the road is made. When a storm of driven snow surprises them, they take the shelter of some wood, and stay there as long as the tempest lasts. If they are a large company, they dig a place for themselves under the snow, and cover the entry with wood or brambles. Sometimes they hide themselves in caves or holes, wrapping themselves up in their furs; and, when thus covered, lie as warm as in their huts; they only require a breathing place, and their clothes not to be tight about them; for then the cold is insufferable. The best travelling is in March or April, when the snow is hard or frozen a little at top; however, there is still this inconvenience, that travellers are sometimes obliged to lodge two or three nights in desert places; and it is difficult to prevail upon the Kamtschataus to make a fire either for warming themselves or dressing victuals, as they and their dogs eat dried fish, and find themselves as warm wrapped in their furs, and sleep in the open air as sound, as others in a warm bed. In summer, when the services of their dogs are not required, they are left to provide for themselves, by ranging over the country: at the approach of winter they return home in the most punctual manner.

Kamtschatka is said to have been discovered by a body of Cossacks in 1696; it was finally subdued by the Russians in 1711, but did not attract much attention until the discovery of the Aleutian, and Fox Islands. It is divided into the four districts of Bolcheretsk, Tiguilok, Nijni

Kamtschatk, and Versck nei Kamtschatk, all of which are said to be protected by a force of 500 men. The Russian settlements are small. St. Peter and St. Paul's, which is the chief, containing only about thirty houses. It stands in lat. $53^{\circ} 0' 15''$ N., and in long. $158^{\circ} 4' 9''$ E.

The introduction of ardent spirits, their eagerness for which knows no bounds, has been here productive of the most pernicious effects. The Russian traders, who are well aware of this, sell it at an extravagant price, and inveigle from them their most valuable effects in exchange. The trade with Russia chiefly flows through Okhotsk.

KANDAHAR, a considerable province of **AFGHANISTAN**, which see. It lies between 31° and 34° of N. lat. and 64° and 68° of E. long., being inhabited by Nomade tribes, and having few towns. Perhaps the inhabitants amount to 50,000, who are chiefly Douranies, or of the sovereign's tribe: but Hindoo shopkeepers and bankers reside among them. In the summer they reside in the mountains and during winter in the plains; living in tents of black woollen cloth (Kiyhdes) about twenty-five feet long by twelve broad and eight feet high, supported generally by three poles and divided in the middle. At the west of their encampment, which consists of from fifty to 100 of these tents, a space is marked out with stones for a mosque; and at a little distance is a tent for the reception of strangers. Hyenas, leopards, bears, wolves, jackals, boars, foxes, deer, hares, and the wild ass, abound on these mountains. The tame animals are cannels, horses, mules, cattle, asses, sheep, goats, dogs, and cats; and a few buffaloes. Their grapes and melons are fine; but they have no mines, or manufactures. The road from India to Persia however insures here a considerable transit trade. The province is governed by a prince or noble, deputed by the king of the Afghauns. In former times this province was alternately subject to Persia and Hindostan. The rivers Helmund and Argandab traverse this province; the principal town of which, beside Kandahar, is Sufia, or Sufta; it has also innumerable castles or fortresses. Kandahar was long thought in Europe to be generally a mountainous province, and a complete barrier on the side of Persia. But it is now known to be comparatively level, and easily entered from the west.

KANDAHAR, a celebrated fortress and town, the capital of the above province, stands in lat. $39^{\circ} 20' N.$, long. $65^{\circ} 30' E.$ The fortress is two miles north of the city, on the top of a precipitous rock. In early times it was the residence of a Hindoo prince, and in the beginning of the eleventh century is said to have been in possession of the Afghaun tribe of Khilgee, or Ghiljee. It was taken by the emperor Baber in 1507, who found in it considerable wealth; but it was shortly after recovered by the Afghauns. In the year 1521 Baber regained possession of it, after a long siege, and of all the district of Gurmseir, to the government of which he appointed his son Kamran. When Homayon, another son of Baber, about the middle of the sixteenth century, was driven from the throne of

Hindostan, into Persia, he agreed, in return for the assistance given him by Shah Tahmasp, to make over the fort and district of Kandahar to him; but forgot or repented of his promise, and afterwards took possession of the fortress. It remained an appendage of Hindostan till 1625, when it was taken by Shah Abbas. Twelve years subsequently, Aly Murdan Khan, the governor of Kandahar, delivered it up to Shah Jehan. Since this event it has often been the cause of a war with Persia. In 1649 Shah Abbas II., succeeded in again getting possession of it, and garrisoned it with 10,000 musqueteers and artillery-men, who defended it against the prince Aurungzebe, with an army of 50,000 men, for several months, and till winter obliged him to raise the siege. Three years after Aurungzebe renewed the siege; but was compelled again to retreat from it, and the fort remained in the quiet possession of the Persians, till, in 1709, it was taken by Meer Veis, of the Afghaun tribe of Ghiljee. Nadir Shah invested Kandahar with 80,000 men, and after a siege of nearly two years succeeded in carrying it: but on his assassination, in 1747, Ahmed, the chief of the Abdallies, surprised it, and thus laid the foundation of the present kingdom of Afghanistan. During his reign it continued the capital; but his son Timour Shah, being dissatisfied with the Dourany tribe, removed his residence in 1774 to Cabul. It is at this time about three miles in circumference; and is said to be a flourishing and populous place, chiefly inhabited by persons of Persian or Hindoo descent; but the natives of all countries of the east are to be met with here. It stands on the great road into Persia, and is in general governed by one of the king's sons. The environs are well cultivated; and abound with gardens and orchards. At a short distance are the ruins of a large city, said to be the native place of the Ghorian sovereigns.

KANGRAH, a district and fortress of the province of Lahore, Hindostan, situated about the thirty-second degree of north latitude. The modern territory is limited on the north and north-west by Hurreepoor; on the east by Chainbay; on the south by Calowr; and on the west by Punjab. In 1783 its revenue was estimated at seven lacks of rupees. On the conquest of Serinagur by the Nepaulese, in 1803, their army was stopped in its progress to Nepaul by this fortress, which then belonged to Rajah Sansar Chund. It is situated on a steep mountain, about thirty miles to the west of the Beyah, and is well supplied with water: the ground it contains, it is said, will subsist a garrison of 3000 or 4000 men. It now belongs, we believe, to the Seiks. In the vicinity of this fortress, upon a lofty mountain, Abul Fazel describes a place called Maham-ey, 'which they (the Hindoos) consider as one of the works of the divinity, and come in pilgrimages to it from great distances, thereby obtaining the accomplishment of their wishes. It is most wonderful,' he says, 'that, in order to effect this, they cut out their tongues, which grow again in the course of two or three days, and sometimes in a few hours. Physicians believe, that when the tongue is cut

it will grow again; but nothing except a miracle can effect it so speedily as is here mentioned!'

KANKHO, or KANKIANGHO, a considerable river of China, flowing from north to south, in the province of Kiangsee, and falling into the Poyang Lake. It forms the termination of the great water communication from Pekin southwards: and its waters are clear, its bed rocky, and the navigation sometimes dangerous.

KANGAROO ISLAND, an island on the south coast of New Holland, discovered and named by captain Flinders, who found a great number of kangaroos here. They were so tame that they suffered themselves to be shot in the eyes with small shot, and, in some cases, to be knocked on the head with spikes: there is little doubt that they had never before seen any of the human species. All that part of the island visible from the ship was covered with a thick wood; and captain Flinders examined a part of the soil which he thought very superior to that of the neighbouring islands. The cliffs and the loose stones scattered over the surface of Kangaroo Head had the appearance of being calcareous. But the basis seemed to be brown slate. Long. of Kangaroo Head, $137^{\circ} 58' 31''$ E., lat. $35^{\circ} 43' 0''$ S.

KANSAS, or KANZAS, or KANSEZ, a river of North America, which rises in the Rocky Mountains, and, after an easterly course of about 1200 miles, unites with the Missouri, 310 miles from the Mississippi, in long. $94^{\circ} 20'$ W., lat. $38^{\circ} 31'$ N.

KANT (Immanuel), the celebrated metaphysician, was born the 22d of April 1724 at Konigsberg, in Prussia. His parents held a respectable, though not high, rank in life, his father being a saddler, of the name of John George Kant, and originally descended from a Scotch family, who spelt their names with C. His father died in 1746.

Of the first years of Kant's life little is known. From his mother, a woman of sense and uncommon piety, he is said to have imbibed warm sentiments of devotion, which left most reverential impressions of her memory upon his mind. He received his first instruction in reading and writing at the free school of his parish; and his early indications of talent induced a maternal uncle, named Richter, to defray the expense of his farther education at the college Fridericianum, under the well known puritan, Schiffert. Here he contracted his intimacy with Rhunken. In the year 1740 he entered the University of Konigsberg. Here his first tutor was Martin Knutzen, then in high repute, who devoted himself with zeal to the instruction of his pupil, and contributed very greatly to the unfolding of his talents. He attended also the lectures of Teske, on philosophy and the mathematics, and those of Dr. Schultz, another famous puritan, on theology. On the completion of his studies he accepted a situation as tutor in a clergyman's family, some distance from Konigsberg, and afterwards a similar one in the house of count de Hulleson, in Armsdorf. He fulfilled his duty as a tutor, by no means to his own satisfaction. He was too much occupied, he tells us, with acquiring and

digesting knowledge in his own mind, to be able to communicate the rudiments of it to others. After being thus engaged for nine years, he returned to Konigsberg, and maintained himself by private tuition, ready to embrace the first opportunity that offered of re-entering the university. In 1746, when only twenty-two years of age, he began his literary career with *Thoughts on the Estimation of the Animal Powers*, containing strictures on the proofs advanced by Leibnitz and other mathematicians on this point; to which were annexed various reflections on the powers of bodies in general. He sets out with maintaining and justifying his right of opinion as an independent thinking being, and follows up this principle with differing from Leibnitz, Wolf, Hermann, Bulfiner, &c., on this particular. In 1754 appeared *An Examination of the Prize Question of the Berlin Society*—whether the earth, in turning round its axis, by which the succession of day and night was produced, had undergone any change since its origin? what could be the causes of it? and how we could be assured of it? The judicious treatment of these two subjects gained him the reputation of a philosopher, and paved the way to his long desired promotion to a degree. In 1755, and at the age of thirty, he was chosen M. A. and entered upon the task of lecturing before crowded audiences. He continued, during fifteen years, to publish every year something on the abstruse branches of science. These works were, in the year 1755, *An Examination of the Question*—whether the earth has decayed? A universal Natural History and Theory of the Heavens; or, an Essay on the Constitution and Mechanical Structure of the whole Globe, according to the Newtonian System. It was the singular fate of this work, which was dedicated to his Prussian majesty, never to come before the public or his majesty; the publisher failing at the period of its publication, and all his MSS. and effects being put under seal; in consequence of which, six years after, the famous Lambert unintentionally plucked the laurels of invention from the brow of our philosopher, by advancing the very same principles, and having the credit of originality. The justness of Kant's theory was, thirty years afterwards, evinced by the practical investigation of Herschel.

In 1756 appeared *Principiorum primorum Cognitionis Metaphysicae nova Dilucidatio*; History and philosophical description of the earthquake in the year 1755; and in another work, further considerations on this subject. *Monadologia*, *Physica*, *Metaphysica cum Geometrica Juncta*: usus in *Philosophiae Naturali Specimen Primum*, an academical piece. *Remarks for the Elucidation of the Theory of the Winds*. In 1757 *Sketch and Annunciation of Lectures on Physical Geography*. In 1758 *New Principles of Motion and Rest*, and the results connected with them in the fundamentals of Natural Philosophy; to which an *Annunciation of Lectures* on those subjects is affixed: a small work which, at the time, excited great notice, and was afterwards inserted more at large in his later writings. In 1759 *Considerations on Optimism*, with which likewise Lectures were announced. In 1760 *Thoughts on the early death of Mr. John*

Frederic Von Funk, in a letter to his mother. A Trial to introduce the Idea of Negative Sizes in Philosophy, the only possible grounds for the Demonstration of a Deity.

Kant wished, in this latter work, to show, that without presupposing the independent existence of ourselves, or that of other spirits, something is possible; and on that proof alone rests the grounds by which to demonstrate the existence of a Deity. It contributed as much as any work to establish his literary character. In 1764 Reflexions on an adventurer named Jan Pawlis Rowicz Idomozyrskich Komonoraki. This was a fanatic, who was then deluding the country people by pretences to a prophetic spirit. Kant was a decided but rational enemy to all fanaticism. In another pamphlet, entitled An Essay on the Disorders of the Head, he examined this subject philosophically. Soon after which, in the same year, appeared his Observations on the Sublime and Beautiful, which acquired him the title of the German Bruyère; also, A Treatise on Evidence in Metaphysical Sciences, which obtained the accessit of the Royal Academy in Berlin.

In this treatise he points out the principles of certainty which the mathematical and philosophical sciences have in common with each other, and those which are peculiar to them. He strikes out a new path for himself in metaphysics, and often criticises the usual philosophical methods of argumentation. His ideas are here often similar to those of Mendelsohn, but he no less frequently elucidates with great originality. In 1765 he published, under the simple title of Intelligence respecting the Arrangement of Lectures for the Winter Half-year, a beautiful and striking system of metaphysics, logic, and ethics; and, in 1766, attacks Swedenberg, who pretended to converse with spirits, in his Dreams of a Ghostseer, illustrated by the Dreams of Metaphysics. He here defines what he understands by metaphysics, as a science resulting from the exercise of human reason, totally unconnected with any thing immaterial. In this same year he obtained the second place of Inspector to the Royal Library in the palace. He undertook also the management of the beautiful collection of natural curiosities, and cabinet of arts, belonging to Mr. Saturgus, minister of the commercial department, which afforded him an opportunity of studying mineralogy. He however gave up both these situations some years after.

Kant's reputation and literary productions did not long remain unknown to the Prussian monarch, who had made him repeated offers of a professorship in the Universities in Jena, Erlangen, Mitau, and Halle, and invested him with the character of privy-councillor. But he declined all these honors, from an attachment to his native place. He might indeed have received the professorship for poetry in his own university much sooner; but, not thinking himself adequate to the task, he would not accept of it, and waited patiently till 1770, when the situation of professor for the metaphysical department became vacant, and was immediately bestowed on him.

On the 31st of March this year he entered upon his new and long wished-for office, by an inaugura-

tive disputation, which he afterwards published under the title of *De Mundi sensibilis atque intelligibilis Forma et Principiis*; in which he maintained his favorite principle of purifying metaphysics from confounding the sensual with the spiritual, by prescribing the limits of each. Thus, for example, when speaking of time and space, he traces their origin, not from the sense, but the soul. He maintains, 'they are not any thing objective and real; neither substances, accidents, and relations, but a necessary qualification flowing out of the nature of our souls.'

His situation now called his whole attention to metaphysical subjects, and he pursued them with the most unremitting ardor, in order to unfold the rational powers of man, and deduce thence his moral duties. In 1775 appeared his Tract on the various sorts of Human Beings. In 1780 he became a member of the Academical Senate. In 1781, besides his Correspondence with Lambert, he published his Criticism on Pure Reason, in which he maintains that the doctrine of materialism was limited by external objects. This publication, which subjected him to much misinterpretation, occasioned a second part in 1783, entitled Prolegomena, for future Metaphysics, which are to be considered as a science; in this he illustrated his former doctrine, and entirely abstracted from the definition of metaphysics any thing supernatural. In 1781 he wrote the tracts entitled Considerations on the Origin of Powers, and the Methods of Judging them. Ideas on a Universal History, as a Citizen of the World. Answer to the question, what is Illumination? On Volcanoes in the Moon. A Definition of the Idea of a Race of Men. On the Injustice of Pirating Books. Elements of Metaphysics and Morals; all of which went off so rapidly that a second edition was printed in the following year. In 1786 the three following: Supposed Commencement of the Human Race. What he understood by representing to one's self the Nature and Qualities of Things. Metaphysical Elements of Natural Philosophy; in which latter work he entered at large into the exercise of the reasoning powers with regard to material objects. In the same year he was appointed rector of the university.

During his first rectorate he had the task of addressing, in the name of the university, Frederick II. The king replied in a manner which did the philosopher and the monarch equal honor. Not long after this, without any solicitation on his part, he received a considerable addition to his salary from the foundation of the upper college. In 1787 he roused the public curiosity by his Criticism on Practical Reason, in which he enlarged on the moral, as he had done before on the metaphysical, principles of his philosophy. In the summer of 1788 he was chosen rector of the university a second time, and, after a short space, senior of the philosophical faculty.

Though now advanced in life, Kant presented the public, with several useful publications; as in 1793, Religion within the bounds of Plain Reason; wherein he endeavours to show the consistency between reason and revelation. On the common proverb, what may be good in Theory is bad in Practice. In 1794 Something respect-

ing the influence of the Moon on the Weather. In 1795 The end of all Things. An Eternal Peace. A Philosophical Sketch, elucidating his Free Sentiments on Politics. In 1796 To Sömmerring on the Organ of the Soul. On the Modern High Tone in Philosophy. Metaphysical Elements of the Civil Law. In 1797 Upon the Justification of Lying from Good Motives. Metaphysical Elements of the Moral Law. Declaration upon Mr. Schlettwine's Challenge in a Letter from Grieswald. On the Power of the Mind in Subduing the Sensations of Pain. In 1798, On Book-making, in two Letters to Mr. Frederick Nicolai, &c. Explanatory Observations on the Civil Law, for the possessors of the first edition, and The Dispute of the Faculties.

At last, in A Pragmatical View of Anthropology, he takes leave of the public as an author, consigning his papers over to the revision of others. After which he gave up all his official situations, and, amidst growing infirmities, retired into solitude. He afterwards, however, collected from his papers (in 1801), Logic, or, a Guide to Lecturing. (1802), Physical Geography. (1803), On Giving Instruction. (1804) Upon the Prize Question of the Royal Academy at Berlin, What is the Actual Progress made in Metaphysical Sciences since Leibnitz and Wolf? Kant had enjoyed for seventy years an almost uninterruptedly good state of health, but, early in May 1800, he was confined to his room in consequence of a fall he had received; and in the winter was unable to leave his bed-chamber. Shortly after he experienced a fit of the apoplexy; and towards twelve at noon, on the 12th of February 1804, tranquilly breathed his last.

Kant's intellectual qualifications were of no ordinary stamp. He possessed a prodigious memory, and often cited long passages from ancient and modern writers, particularly his favorite poets, Horace and Virgil, Hagedorn and Burger. He could describe objects that he had read of in books even better than many who had seen them; thus, for example, he once gave a description, in the presence of an Englishman, of Westminster Bridge, its form and structure, length, breadth, height, and dimensions of all its parts, so that his auditor enquired how many years he had been in London, and whether he had dedicated himself to architecture; upon which he was assured that Kant had never passed the boundaries of Prussia. A similar question was put to him by Brydone, to whom he unfolded in conversation all the relative situations of Italy.—A consequence of having such a memory was, that he set no value on an extensive library. The contents of books were his only object of desire; and he acquired them by once or twice reading. The books themselves were then rather burdensome to him than otherwise. He accordingly made a contract with the bookseller, Nicolovius, in this town, to send all new books in sheets, which he read in that form, and generally returned afterwards. But the most prominent feature in Kant's intellectual character was the accuracy with which he analysed the most complex ideas. Nothing escaped the scrutiny of his intellectual eye. He discovered at once the incongruities of other men's sentiments, and

traced, with unspeakable precision, their errors to their true source.—He had likewise an astonishing faculty of unfolding the most abstruse principles, and digesting single and individual sentiments into a systematic order. Herein consisted the originality of his mind. All his philosophical conceptions flowed from the inexhaustible source of his own reason. The facility with which he deduced every thing from his own reflexions gave him at length such an habitual familiarity with himself, that he could not properly enter into the sentiments of others. He found all in his own mind which answered his purpose, and had therefore no occasion for foreign resources. No task was so hard for him as to leave the current of his own thought, in order to follow the chain of another's reasoning; and, when compelled to investigate the argument of his adversaries, he frequently begged of his friends to compare the sentiments of the former with his, and communicate the results to him, or even to undertake the defence of his doctrines instead of himself.

With all this depth of reflection, Kant was notwithstanding a wit. He had frequent and sudden strokes of repartee at hand, and was a general admirer of all that polishes and beautifies the graver topics. On moral subjects he could move his audience to tears. He united, in the happiest degree, the greatest acuteness of reasoning with the polish of the gentleman. His charities, particularly to indigent scholars, were unbounded. Kant was never married; was of a remarkably slender and delicate make; and had so little flesh, that his clothes could never be made to fit by artificial means. His nervous and muscular system was no less tender. His face, when young, must have been handsome; he had a fresh color, and fine large blue eyes, as expressive of goodness as talent.

KAN-TCHEOU, or KAN-CHOO-FOO, a flourishing town of China, in the province of Kiang-si. Its rivers, port, riches, and population, all contribute to attract strangers. A day's journey from this city there is a very rapid current, almost twenty leagues in length, which flows with great impetuosity over a number of scattered rocks that are level with the water. Travellers here are in great danger of being lost, unless conducted by a guide. Near the walls of the city there is a very long bridge, composed of 130 boats joined together by strong iron chains. The custom-house is upon this bridge, where a receiver constantly resides to visit all barks. Two or three moveable boats are so placed that by their means the bridge can be opened or shut, at pleasure. In the territory belonging to this city a great number of those valuable trees grow, from which varnish distils. Its district is extensive, and contains twelve cities of the third class. It seems to be the Campion of Marco Paulo.

KAOLIN, an earth which is used as one of the two ingredients in oriental porcelain. Some of this earth was brought from China, and examined by Mr. Reaumur. He found that it was perfectly infusible by fire, and believed that it is a talc earth; but M. Macquer observes, that it is more probably of an argillaceous nature,

from its forming a tenacious paste with the other ingredient called petuntse, which has no tenacity. Mr. Bomare says, that by analysing some Chinese kaolin, he found it was a compound earth, consisting of clay, to which it owed its tenacity; of calcareous earth, which gave it a mealy appearance; of sparkling crystals of mica; and of small gravel, or particles of quartz crystals. He says, that he has found a similar earth upon a stratum of granite, and conjectures that it may be a decomposed granite. This conjecture is the more probable, as kaolins are frequently found in the neighbourhood of granites. See *PORCELAIN*.

KAO, called also Aghao, or Oghao, and Kay-hay, one of the Friendly Islands in the South Pacific. It is a mountainous conical rock, and about two miles in diameter at the base, and was discovered by the Dutch navigator Tasman. It is two miles north-east of Toofoa, and uninhabited.

KAOTCHEOUFOU, a city of the first rank in China, in the province of Quangtong. It is thirty-six miles from the sea, and situated on a navigable river. The surrounding district is fertile, and produces a figured marble or jasper, 200 miles E. S. E. of Canton.

KARAITES, or GARITES, an ancient religious sect among the Jews, whereof there are still some subsisting in Poland, Russia, Cairo, and other parts of the Levant; whose distinguishing tenet is, to adhere closely to the letter of the scripture, exclusive of allegories, traditions, and the like. Aben Ezra, and some other rabbies, treat the Karaites as Sadducees; but Leo de Juda calls them, Sadducees reformed; because they believe the immortality of the soul, paradise, hell, resurrection, &c., which the ancient Sadducees denied. But he adds, however, that they were doubtless originally real Sadducees. Josephus and Philo make no mention of them; which shows them to be more modern than either of those authors. This sect was probably not formed till after the collection of the second part of the Talmud, or the Geinara; perhaps not till after the compiling of the Mischna in the third century. The Karaites themselves pretend to be the remains of the ten tribes. Wolfius, from the Memoirs of Mardocheus, a Karaite, refers their origin to a massacre among the Jewish doctors, under Alexander Jannæus, about A. D. C. 100; when Simeon, son of Schetach, the queen's brother, making his escape into Egypt, there forged his pretended traditions; and, at his return to Jerusalem, published his visions; interpolating the law after his own fancy. He gained many followers, and was opposed by others, who maintained, that all which God had revealed to Moses was written. Hence the Jews became divided into Karaites and Traditionaries: among the first, Judah, son of Tabbai, distinguished himself; among the latter, Hillel. The Karaites are little known; their works being in very few hands, even among the greatest Hebraists. Selden, who is very express on this point, in his *Uxor Hebraica*, observes, that besides the mere text, they have certain interpretations, which they call hereditary, and which are proper traditions. Caleb, a Karaite, reduces the differ-

ence between them and the rabbinites to three points. 1. They deny the oral law to come from Moses, and reject the Cabbala. 2. They abhor the Talmud. 3. They observe the feasts, the sabbaths, &c., much more rigorously than the rabbis do. To this may be added, that they greatly extend the degrees of affinity, wherein marriage is prohibited.

KARAK, an island of the Persian Gulf, containing about twelve or thirteen square miles, and affording a safe anchorage at all seasons, but more particularly during the gales which blow here from the north-west. The eastern side alone is capable of being cultivated. Sir John Malcolm, in 1803, recommended the British to occupy and fortify Karak, as a defensive position, and the Dutch are said at one time to have increased its inhabitants to 2000 or 3000. At present it is in the possession of the Persians. The best pilots for Bassorah may be procured here, and there is a good supply of water. Lat. 29° 14' N.

KARAMAN, or CARAMAN, a town of considerable size, but decayed appearance in Carmania, and standing at the foot of the Bedlerin Dag mountains, a branch of Mount Taurus. It was formerly defended by a castle, now in ruins; and the population is said to amount to 3000 families of Turks, Turkmans, Armenians, and Greek. The water is good and plentiful, and the climate healthy. It trades with Cæsarea, Smyrna, and Tarsus, and has an extensive manufacture of blue cotton cloth. There are in the city twenty-two khans, a number of mosques, and six public baths. Fifty-five miles south of Konich. See *CARAMANIA*.

KARANG SAMBONG, a large inland town of Java, situated on a fine navigable river, which runs through Indramayo into the sea. The Dutch had a large factory at this place, and a shorter inland communication to Batavia is now establishing from hence by means of a new road, by the way of Crawang. It is 168 miles south-east of Batavia.

KARAVANSERA, or more commonly CARAVANSERA, a place in the East appointed for receiving the caravans. It is commonly a large square building, in the middle of which there is a very spacious court; and under the arches or piazzas that surround it there runs a bank, raised some feet above the ground, where the merchants, and those who travel with them in any capacity, take up their lodgings; the beasts of burden being tied to the foot of the bank. Over the gates that lead into the court there are sometimes little rooms, which the keepers of the karavanseras let out at a very high price to such as wish to be private. The karavanseras in the east are something of the nature of the inns in Europe; only that you meet with little accommodation either for man or beast, but are obliged to carry almost every thing with you. Every karavansera has a well. These buildings are chiefly owing to the charity of the Mahomedans; they are esteemed sacred dwellings, where it is not permitted to insult any person, or to pillage any of the effects that are deposited there. There are also karavanseras where most things may be had for money; and, as the profits

of these are considerable, the magistrates of the cities to whose jurisdiction they belong, take care to store them well. There is an inspector, who, at the departure of each caravan, fixes the price of the night's lodging, from which there is no appeal.

KARLE, a Saxon word used in English law, sometimes simply for a man; and sometimes, with an addition, for a servant or clown. Thus the Saxons call a seaman buscarli, and a domestic servant buscarle. Hence the modern word churl.

KARLSBURGH, called also Lower Weissenberg, a palatinate of Transylvania, belonging to Hungary, and lying along the Marosch and the Kockel. Its area is about 1800 square miles, chiefly pasture, but producing also corn and wine. Its minerals are salt, mercury, and silver; gold also is found, and its forests are extensive. Population 100,000.

KARLSBURG ALBA CAROLINA, or BELGRAD, a town of Transylvania, on the Marosch, the chief town of the palatinate of Karlsburg, and the former residence of the princes of Transylvania. It stands at the foot of a chain of mountains, bounded by a fertile valley on the east, and is the only regular fortress of the country. The principal gate of the town is handsome, and the cathedral, for it is a bishop's see, is a majestic edifice, containing the tombs of John Corvinus, his son Ladislaus, queen Isabella, and duke Sigismund. The episcopal palace, the residence of the chapter, the barracks, the arsenal, the mint, and observatory, are also worth notice: the church of Bathory contains a splendid mausoleum, erected by the king of Poland of that name, to his brother, a prince of Transylvania. Karlsburg has a Calvinist and a Lutheran church, and two Greek churches, and two synagogues. It was a Roman colony of the names of Apulum and Alba Julia, and stands thirty-two miles north-west of Hermanstadt, and forty-nine south by west of Clausenburg.

KARLSRUHE, or CARLSRUHE, a handsome town of Germany, in Suabia, in the territory of Baden Durlach, having a magnificent palace. The town is built on a regular plan, and the houses are all uniform. It is twelve miles north by east of Baden.

KARLSTADT, a government of Sweden, comprising almost the whole of the ancient province of Warmeland. Its superficial extent is 4267 square miles, with 140,000 inhabitants. The capital is Carlstadt. See WARMELAND.

KARNATA, an ancient Hindoo kingdom, which comprehended all the high table land in the south of India, above the Ghauts. The principal rivers of this part of the country have their sources in this region; and it was governed by the Balala rajahs, whose capital was Balgami, in the district of Mysore.

KAROULY, a town, citadel, and district of Agra, Hindostan, situated on the banks of the Putehpuree. The rajah is of the military tribe of the Rajpoots, and his ancestors formerly reigned at Biana; but they have been stripped of their possessions by the Afghauns, Moguls, and Mahrattas; their revenues are now not above £15,000 per annum.

KARSHAGNI, in Hindoo mythology, a fiery kind of expiation of sin among that people; the following account of which is given in Moor's Hindoo Pantheon:—‘Cow-dung is a great purifier on several occasions. It is related in the Agni-purana, that a most wicked person, named Chanyaka, had exceeded every known possibility of salvation. At the court of Indra were assembled gods and holy men; and, as they were discoursing on such enormities, Indra, in answer to a pointed question, said that nothing certainly could expiate them except the karshagni. It happened that a crow, named, from her friendly disposition, Mitra-kaka, was present; and she immediately flew and imparted the welcome news to the despairing sinner, who immediately performed the karshagni, and went to heaven. This expiation consists in the victim covering his whole body with a thick coat of cow-dung, which, when dry, is set on fire, and consumes both sin and sinner. Until revealed by the crow, this potent expiation was unknown; and it has since been occasionally resorted to, particularly by the famous Sankara-Charya. The friendly crow was punished for her indiscretion; and forbidden, and all her tribe, ascension to heaven, and was doomed on earth to live on carrion.’

KASAN, a large country of the Russian empire, lying on both sides of the Volga, or between $46^{\circ} 20'$ and $49^{\circ} 40'$ E. long., and 54° and 57° N. lat. It was formerly an independent kingdom, subject to the Kalmyk Tartars, to whom the great dukes of Muscovy, with the other petty princes of Russia, were tributary. But John Basiliowitz I., the founder of the Russian greatness, about the end of the fifteenth century, rescued his country from the Tartar yoke; and in 1552 John II. conquered Kasan, which now comprises a territorial extent of 22,000 square miles. It is divided into twelve circles, and watered by the Wolga, Sura, Viatka, and Kasarka rivers, besides smaller streams. The country is flat, except towards the east, where a branch of the Ural Mountains diversifies its appearance. The soil, a clay or black mould of considerable fertility, is ill cultivated and chiefly occupied with the breeding of cattle; but corn, hemp, hops, and fruit, are grown. In the towns are a few manufactures of cloth, soap, and leather. The climate is temperate for the latitude, the rivers not freezing before November, and being open again about April.

KASAN, a city of Russia, long the capital of the old kingdom of Kasan, is situated on the Kasanka, about four miles above its junction with the Wolga, on elevated ground. The streets are wide but irregular. The town consists of three parts; an antique Tartar fortress, the town proper, and the villages or suburbs around. The fort only is built of stone, the rest of wood. It is a bishop's see, and the seat of a small university, founded in 1803. It has also a theological seminary, two gymnasias, a school for the children of Tartar converts, and one for those of soldiers. It has manufactures of woollen, cotton, lace, and earthenware, and large soap-works and tanneries. In these articles, and corn, wax, honey, skins, tallow, &c., it carries

on an active trade with St. Petersburgh, Archangel, Tobolsk, Orenburg, and Moscow. The great fair of Macariev is an important channel for the merchandise of this place. At a little distance is a new admiralty establishment, with a navigation school, magazines, and dock-yard, 208 miles east by south of Niznei-Novgorod, and 345 E.S.E. of Kostroma. Inhabitants 18,000.

KASKASKIA, a river of Illinois, which runs south-west into the Mississippi, below the town of Kaskaskia, sixty-three miles below the Missouri. It is navigable for boats 150 miles. Its general course is south-west and south. It flows through a very fertile country, abounding in natural meadows. There are high banks through a part of its course, on the east side, composed of lime-stone and freestone; in some places from 100 to 150 feet. The land on the west side of this river is described as the best in the whole of Illinois.

KASSON, a kingdom of Central Africa, on the Senegal, having Kaarta on the east, and Kajaaga on the west. It is fifty miles from north to south, and about the same from east to west; a beautiful level country, surpassing in population and culture any which Park saw in coming from the coast: Kooniakarg is the capital.

KATADEN, or KITANDIX, Mountain Maine, North America, seventy miles north of Bangor. It is situated east of Chesuncook Lake, between the eastern and western branches of the Penobscot, and is the highest and southernmost of a cluster of eight or ten mountains: it may be seen in a clear day at Bangor, and also at Dixmont, eighty miles distant. In August, 1805, a party of eleven persons ascended this mountain. They had no means of ascertaining its height, but estimated it at 13,000 feet. They describe the prospect from the top as very enchanting, affording a view of sixty-three lakes of various extent, and all the mountains between Maine and Canada.

KATTEGATE, or CATEGATE, a noted sea lying between part of Jutland and the coast of Sweden, towards the latter, interspersed with a great number of isles. It is almost closed at the extremity by the low Danish islands of Zealand and Funen, which had in old times been (with Sweden) the seat of the Saiones. Between the first and the coast of Sweden is the famous Sound, the passage tributary to the Danes by thousands of ships. These islands were called Codanonia, and gave to the Kattegate the name of Sinus Codanus. Its greatest depth is thirty-five fathoms. It decreases as it approaches the sound; which begins with sixteen fathoms, and near Copenhagen becomes shallow to even four. The Roman fleet, under the command of Germanicus, sailed, according to Pliny, round Germany, and even doubled the Cimbricum Promontorium, and arrived at the islands which fill the bottom of the Kattegate; either by observation or information, the Romans were acquainted with twenty-three. One they called Glessaria, from its amber, a fossil abundant to this day on part of the south side of the Baltic. A Roman knight was employed by Nero's master of the gladiators to collect in these parts that precious

production, by which he became perfectly acquainted with this country.

KAUFFMAN (Mary Angelica), a lady who possessed the talents and taste of a painter in a degree very unusual among her sex. She was a native of Coire, the capital of the Grisons, and born in 1740. Her father was an artist, who, perceiving the extraordinary talents of his daughter, conducted her, at the age of fourteen, to Milan, and afterwards to Rome; where her talents and accomplishments soon acquired her the most distinguished attention. It was the happy lot of lady Wentworth, the wife of the British resident at Venice, to be the instrument of conveying Angelica to England in the year 1764. Here she was received in a very flattering manner; her works eagerly sought for; and her company solicited by the learned, the great, and the polite. She was honored with royal attentions, and was esteemed and courted by artists of the first reputation. She was very industrious, and painted the lighter scenes of poetry with a grace and taste entirely her own; and happily formed to meet that of an engraver (Bartolozzi) whose labors highly contributed to the growth and perpetuity of her fame; and who almost entirely devoted his talents between Angelica and Cipriani. After some years residence here, she was unhappily deceived by a footman of a German count, who, coming to England, personated his master, contrived to be presented at court, and persuaded Angelica to marry him. The cheat was soon discovered, and the villain had not the humanity to endeavour to soothe her disappointment by kindness, but treated her very ill. At last, however, by a payment made to him of £300, he was induced to return to Germany, and bind himself never to molest her any more. He kept his engagement; and the lady not hearing of him for seven years, and concluding him dead, then married an Italian painter of the name of Zucchi, and, having spent seventeen years in England, returned with him to her native country, and thence to Rome; where her house became the resort of genius and taste; all artists and cognoscenti taking pleasure in being admitted to her conversazioni; while amateurs, endowed with rank and wealth, were happy in finding employment for her talents. She lived to the age of sixty-seven, and then fell by a gradual decay, under that dominion which is alike regardless of the great, the learned, the virtuous, and the profligate. She died in 1807, universally regretted, and was honored by splendid public obsequies. The talents of this lady were of a pleasing rather than of a splendid kind. She excelled most in the representation of female characters. Her figures of men want form and energy, and their faces and characters are all of the same mould. Grace, ease, and suavity of expression, generally mark her women; and to single figures, such as Calypso watching the Departure of Ulysses, or Penelope weeping over his Bow, she imparted the true interest of the story.

KAURZIM, a circle of Bohemia, belonging to Austria, and lying between the Elbe and the Mulda. It is traversed by the Sazawa, and is 1030 square miles in extent. It is in general

level; and, though partly covered with forests, is fertile in corn and fruit. The breeding of cattle is also followed up with attention. Some gold mines were formerly wrought, but appear to be exhausted. Population 142,000. The capital is Kaurzim, an old and inconsiderable town, having a population of 1550. Twenty-eight miles E. S. E. of Prague, and forty-three W. S. W. of Konigingratz.

KAW, *v. n. & n. s.* Teut. *kaw*; Belg. *kaauw*. From the sound, probably. To cry as a raven, crow, or rook.

The dastard crow that to the wood made wing,
With her loud *kaws* her raven kind doth bring,
Who, safe in numbers, cuff the noble bird.

Dryden.

Jack-daws *kawing* and fluttering about the nests,
set all their young ones a-gaping: but, having no-
thing in their mouths but air, leave them as hungry
as before.

Locke.

KAYE, **KEYE**, or **CAIUS** (Dr. John), the founder of Caius College in Cambridge, was born at Norwich in 1510. He was admitted very young a student at Gonville Hall, and at twenty-one translated into English Erasmus's Paraphrase on Jude, &c. He travelled to Italy, and at Padua studied physic under Montanus. In 1543 he travelled through part of Italy, Germany, and France; and, returning to England, commenced M. D. at Cambridge. He practised first at Shrewsbury and afterwards at Norwich; but, removing to London in 1547, he was admitted fellow of the college of physicians, of which he was several years president. In 1557, being physician to queen Mary I. (as he was to Edward VI. and queen Elizabeth), he obtained a license to advance Gonville Hall into a college; which he endowed with several considerable estates, adding an entire new square at the expense of £1834. Of this college he was master till near his death. He died in July, 1573, aged sixty-three; and was buried in the chapel of his own college. In 1557 Dr. Kaye erected a monument in St. Paul's to the memory of the famous Linacre. He wrote, 1. Annals of the College from 1555 to 1572. 2. Translation of several of Galen's Works; printed abroad. 3. Hippocrates de Medicamentis, first discovered and published by our author; also De ratione virtutis, Lov. 1556, 8vo. 4. De Medendi Methodo, Basil, 1554; London, 1556, 8vo. 5. Account of the sweating sickness in England, entitled De Ephemera Britanniæ, London, 1556, 1721. 6. History of the University of Cambridge, London, 1563, 8vo.; 1574, 4to. in Latin. 7. De Thermis Britanicis. 8. Of some rare Plants and Animals, London, 1570. 9. De Canibus Britanicis, 1570, 1729. 10. De Pronunciatione Graecæ et Latinae Linguae, London, 1574. 11. De Libris Propriis, London, 1570.

KAYE'S, or **KAY'S ISLAND**, an island in the North Pacific Ocean, whose south-west point is a naked rock, considerably elevated above the land within it. Some parts of the shore are interrupted by small valleys filled with pine trees, which also abound in other parts of the island. It was discovered by captain Cook in 1778, who found the inhabitants possessed of iron. Water-fowls, humming-birds, and beautiful king-fishers

abound in it. Long. 216° 48' W., lat. 59° 50' N.

KAYLE, *n. s.* Dan. *kegle*; Swed. *kegla*; Fr. *quille*. Ninepin; kettlepins, of which skittles seems a corruption; a kind of play very common in Scotland.

KAZEROON, a town of Farsistan, in Persia, situated in a valley about thirty miles long, and seven or eight broad, bounded on the north by a salt lake. It has a well watered neighbourhood, and its crops are therefore abundant, unless when destroyed by locusts, to which Persia is much subject. Its inhabitants do not at present exceed 3000 or 4000.

KEAN, Edmund, a celebrated English tragedian, born in London, 1787, died at Richmond in 1833. He possessed a high order of ability for the profession he adopted, has been compared with Garrick, and attained such excellence in Shylock, Sir Giles Overreach, and Richard III., as no actor ever exceeded. In private, he was benevolent, but given to habits of irregularity which occasioned his early death.

KAZY, in the East Indies, a Mahomedar judge or magistrate, appointed originally by the court of Delhi to administer justice according to their written law; but particularly in matters relative to marriages, the sales of houses, and transgressions of the Koran. He attests or authenticates writings, which, under his seal, are admitted as the originals in proof.

KEACH (Benjamin), a Baptist minister, was born at Stoke Hammond, Buckinghamshire, in 1640. He was sentenced, in 1664, to stand in the pillory for the publication of the Child's Instructor, after which he was chosen pastor of a Baptist congregation in Southwark. He died in 1704. Other two of his works were entitled The Travels of Godliness, and The Travels of Ungodliness. He is best known, however, by his Tropologia, or Key to open Scripture Metaphors, folio, 1682, reprinted in 1778; and his Exposition of Parables.

KEATE (George), esq., F.R.S. and F.A.S., a celebrated English writer, born at Trowbridge, Wilts, in 1729, and educated at Kingston. After completing his education he travelled through France and Italy, and resided some years at Geneva, where he contracted an intimacy with the celebrated Voltaire. Having finished the tour of Europe, he commenced student in the Inner Temple, was called to the bar, and sometimes attended Westminster Hall, but did not practise. His first literary performance was Ancient and Modern Rome, a poem, written at Rouen, in 1755, and published in 1760 with merited applause. Soon after he printed A short Account of the Ancient History, present Government, and Laws, of the Republic of Geneva; dedicated to Voltaire. In 1762 he produced an Epistle from Lady Jane Grey to Lord Guildford Dudley; and, in 1763, The Alps, a Poem, which, for truth of description, elegance of versification, and vigor of imagination, greatly surpasses all his other poetical productions. In 1764 he produced Netley Abbey; and, in 1765, The Temple Student, an Epistle to a Friend; in which he smartly and agreeably rallies his own want of application in the study of the law, and intimates his irresistible penchant for the Belles Lettres. In 1769 he published Ferney, an epistle to

M. Voltaire, in which he introduced a fine eulogium on Shakspeare, which procured him, soon after, the compliment, from the mayor and burgesses of Stratford, of a standish mounted with silver, made out of the mulberry tree planted by that illustrious bard. In 1773 he published The Monument in Arcadia, a dramatic poem, founded on a picture of Poussin. In 1781 he collected his poetical works into 2 volumes, with a dedication to Dr. Heberden, including a number of new pieces, and an excellent portrait of himself. In 1781 he published An Epistle to Angelica Kaufman. Having been engaged in a tedious and vexatious law-suit, he, in 1787, laid the principal circumstances of his case before the public, in a performance entitled The Distressed Poet, a serio-comic poem, in three cantos. The last, and perhaps best, of all his compositions, was the Account of the Pelew Islands, which he drew up and published in 1788, from the papers of captain Wilson. His life passed without any great changes of fortune, as he inherited a large patrimonial estate. He died June 27th, 1797.

KEATS (John), a young English poet, of humble origin, was born October 29th, 1796, at a livery-stable, kept by his grandfather, in Moor-fields. He was sent to Mr. Clarke's school at Enfield, where he remained till the age of fifteen, and was then bound apprentice to a surgeon, in Church Street, Edmonton. On leaving this situation, he attended St. Thomas's Hospital; but his inclination to poetry having been cultivated by his teachers, and meeting when he came out in the world with encouragement, he gave way entirely to the passion of becoming a great poet. He was introduced to Mr. Leigh Hunt, who was struck with admiration at the specimens of his genius, and took him into his house for a time. Keat's first volume of poems made its appearance in 1817, when he was in his twenty-first year, and was followed by Endymion, a Poetic Romance, in 1818; in the year 1820 he published his last and best work, Lamia, Isabella, and other poems. After languishing for some time under a pulmonary attack, he was prevailed upon to try the climate of Italy, where he arrived in the month of November, 1820, accompanied by Mr. Severn, a young artist; and in Rome, on the 27th of December following, in the arms of this gentleman, who attended him with undeviating zeal, he expired, completely worn out. The fragment of Hyperion, which was his last performance, and extorted the admiration of lord Byron, has been compared to those bones of enormous creatures which are occasionally dug up, and remind us of extraordinary and gigantic times.

KEBLA, an appellation given by the Mahomedans to that part of the world where the temple of Mecca is situated, towards which they are obliged to turn their faces when they pray.

KECK, *v.n.* Teut. *kicken*; Belg. *kucken*. To heave the stomach; to reach at vomiting.

All those diets do dry up humours and rheums, which they first attenuate, and while the humour is attenuated it troubleth the body a great deal more; and therefore patients must *keck* at them at the first.

Bacon's Natural History.

The faction, is it not notorious?
Keck at the memory of glorious. *Swift.*

KECK'SY, *n.s.* Commonly *kex*; Fr. *cigue*, Lat. *cicuta*, Skinner. Skinner seems to think *kecksy* or *kex* the same as hemlock. It is used in many parts of Englad both for hemlock, and any other hollow-jointed plant.

Nothing temts
But hateful docks, rough thistles, *kecksies*, burs,
Losing both beauty and utility.

Shakspeare. Henry V.

KECK'Y, *adj.* From *kex*. Resembling a *kex*.

An Indian sceptre, made of a sort of cane, without any joint, and perfectly round, consisteth of hard and blackish cylinders, mixed with a soft *kecky* body; so as at the end cut transversely, it looks as a bundle of wires.

Grew.

KEDAR, in ancient geography, a district in the desert of the Saracens, on the north of Arabia Felix; so called, according to Jerome, from Kedar, the son of Ishmael.

KEDARENI, the people of Kedar, who dwelt in tents like the other Scenites (Psal. cxx.), were rich in cattle (Isaiah Ix.), of a swarthy complexion (Canticles i.), and excellent at the bow (Isaiah xxii.).

KEDES, in ancient geography, a city of refuge, and Levitical city in the tribe of Naphthali, on the confines of Tyre and Galilee. Jerome calls it a sacerdotal city on a mountain, twenty miles from Tyre, near Paneas, and called Cidissus, taken by the king of Assyria.

KEDGE, *v.a. & n.s.* Belg. *kaghe*, a small vessel: kelder, a small anchor used in a river.

In bringing a ship up or down a narrow river, when the wind is contrary to the tide, they set the foresail, or foretop-sail and mizen, and so let her drive with the tide. The sails are to flat her about, if she comes too near the shore. They also carry out an anchor in the head of the boat, with a hawser that comes from the ship; which anchor, if the ship comes too near the shore, they let fall in the stream, and so wind her head about it; then weigh the anchor again when she is about, which is called kedging, and from this use the anchor a *kedger*.

Harris.

KEDGE, a small anchor used to keep a ship steady whilst she rides in a harbour or river, particularly at the turn of the tide, when she might otherwise drive over her principal anchor, and entangle the stock or flukes with her slack cable, so as to loosen it from the ground. This is accordingly prevented by a kedge-rope that hinders her from approaching it. The kedges are particularly useful in transporting a ship; i.e. removing her from one part of the harbour to another, by means of ropes, which are fastened to these anchors. They are generally furnished with an iron stock, which is easily displaced for the convenience of stowing them.

KEDINGEN, a small fertile district of Hanover, in the province of Bremen, on the Elbe. It consists of a rich tract of alluvial marsh-land, and produces abundance of corn and pasture. The inhabitants are also employed in navigation and fishing. Population 6500.

KEDRON, or **CEDRON**, in ancient geography, a town which, from the defeat and pursuit of the Syrians (1 Mac. xvi.), appears to have stood on the road which led from the Higher India to Azotus: in this war it was burnt by the Jews.

KEDRON, or CEDRON, in ancient geography, a brook or rivulet of Judæa, between Jerusalem and Mount Olivet, on the east. St. John calls it a brook, but Josephus a deep valley. Maundrel says it was a brook only in winter, or in rainy weather.

KEE. A provincial plural of cow, properly kine.
A lass that Cicely hight had won his heart,
Cicely the western lass that tends the *kec*. *Guy.*

KEEL, n. s. & v. a. Saxon *cæle*, *cælan* ;
KEELS, n.s. *Dut. kiel* ; *Fr. quille*.
KEEL'FAT, The bottom of a ship :
KEEL'SON, n. s. *keels*, see KAYLE. Keel :
KEEL'HALF, v. a. this word, which is pre-

served in Shakspeare, Hammer explains thus : to keel seems to mean to drink so deep, as to turn up the bottom of the pot, like turning up the keel of a ship. In Ireland, to keel the pot is to scum it : keelfat, Sax. *cælan*, to cool, and fat or vat, a vessel. Keelfat, tub in which liquor is set to cool : keelson, the next piece of timber in a ship to her keel, lying right over it next above the floor timber : keelhale, to punish in the seamen's way, by dragging the criminal under water on one side of the ship and up again on the other.

And down on knees full humbly gan I knele,
Beseeching hire my fervent wo to *kele*.

Chaucer. The Court of Love.

He hearkned, and his armes about him tooke
The while the nimble bote so well her sped,
That with her crooked *kele* she strooke.

Spenser. Faerie Queene.

While greasy Joan doth *keel* the pot. *Shakspeare.*
Portunus

Heaved up his lightened *keel*, and sunk the sand,
And steered the sacred vessel. *Dryden.*
Her sharp bill serves for a *keel* to cut the air be-
fore her, her tail she useth as a rudder. *Grew.*

Your cables burst, and you must quickly feel
The waves impetuous entering at your *keel*. *Swift.*

With cheerful sound of exhortation soon
Their voyage they begin ; the pitchy *keel*
Slides through the gentle deep, the quiet stream
Adornes the unwonted burthen that it bears,
Well polished arms, and vessels painted gay.

Couper. Translation, &c.

Under the vessel's *keel* the sail was past,
And for the moment it had some effect :

But with a leak, and not a stick of mast,
Nor rag of canvas, what could they expect ?

Byron. Don Juan.

A **KEEL** is the principal piece of timber in a ship, which is usually first laid on the blocks in building. If we compare the carcase of a ship to a skeleton, the keel may be considered as the backbone, and the timbers as the ribs. It therefore supports and unites the whole fabric, since the stem and stern-post, which are elevated on its ends, are in some measure a continuation of the keel, and serve to connect and inclose the extremities of the sides by transoms ; as the keel forms and unites the bottom by timbers. The keel is generally composed of several thick pieces placed lengthways, which, after being scarfed together, are bolted, and clenched upon the upper side. When these pieces cannot be procured large enough to afford a sufficient depth to the keel, there is a strong thick piece of timber bolted to the bottom thereof, called the false keel, which is also very useful in preserving the lower

side of the main keel. In our largest ships of war, the false keel is generally composed of two pieces, which are called the upper and the lower false keels. See **NAVAL ARCHITECTURE**. The lowest plank in a ship's bottom, called the garboard-streak, has its inner edge let into a groove or channel cut longitudinally on the side of the keel : the depth of this channel is therefore regulated by the thickness of the garboard-streak.

KEEL is also a name given to a low flat-bottomed vessel, used in the river Tyne to bring the coals down from Newcastle and the adjacent parts, in order to load the colliers for transportation.

KEEL-HAULING, a punishment formerly inflicted for various offences in the Dutch navy. It is performed by plunging the delinquent repeatedly under the ship's bottom on one side, and hoisting him up on the other, after having passed under the keel. The blocks or pulleys by which he is suspended are fastened to the opposite extremities of the main-yard, and a weight of lead or iron is hung upon his legs, to sink him to a competent depth. By this apparatus he is drawn close up to the yard-arm, and thence let fall suddenly into the sea, where, passing under the ship's bottom, he is hoisted up on the opposite side of the vessel. As this extraordinary sentence is executed with a serenity of temper peculiar to the Dutch, the culprit is allowed sufficient intervals to recover the sense of pain, of which indeed he is frequently deprived during the operation. This punishment is peculiarly severe in winter, whilst the flakes of ice are floating on the stream ; and it is continued till the culprit is almost suffocated for want of air, benumbed with the cold of the water, or stunned with blows by his head striking the ship's bottom.

KEELSON, in ship-building, may be properly defined the interior or counter part of the keel ; as it is laid upon the middle of the floor-timbers, immediately over the keel, and like it composed of several pieces scarfed together. To sit with more security upon the floor-timbers and crotches, it is notched about an inch and a half deep, opposite to each of those pieces, and thereby firmly scored down upon them to that depth, where it is secured by spike nails. The pieces of which it is formed are only half the breadth and thickness of those of the keel. It serves to bind the floor-timbers to the keel ; and is fixed to it by long bolts, which, being driven from without through several of the timbers, are clenched upon rings on the upper side of the keelson.

KEEN, adj. & v. a. *Sax. cæle* ; *Ger. Keen'ly, adv.* *mankuhn* ; *Belgic koen.*
KEEN'NESS, n.s. Sharp ; well edged ; not blunt. We say keen of an edge, and sharp either of edge or point ; severe ; piercing ; eager ; vehement ; acrimonious. Keen, to sharpen, an unauthorised word. Keenly, sharply. Keeness, sharpness ; rigor ; asperity.

And thus I am, only for my trouth, alas,
Murdered and slain, with wordes sharpe and *kene*
Although gytelesse, God wote, of al trespass—
And lye, and bledde, upon this coldé grene.

Chaucer. Complaint of the Blache Kn ghe.

Never had shepheard so *keue* a cur,
That waketh and if but a leafe stur.

Spenser. Shepheard's Calender.

Here is my *keen-edged* sword,
Decked with fine flower-de-luces on each side.
Shakspeare.

Never did I know
A creature, that did bear the shape of man,
So *keen* and greedy to confound a man. *Id.*
Come, thick night,
That my *keen* knife see not the wound it makes. *Id.*

Good father cardinal, cry thou, Amen,
To thy *keen* curses. *Id. King John.*
No, not the hangman's ax bears half the *keeness* of my sharp envy. *Id. Merchant of Venice.*
That they might keep up the *keeness* against the court, his lordship furnished them with informations, to the king's disadvantage. *Clarendon.*

The winds

Blow moist, and *keen*, shattering the graceful locks Of these fair spreading trees, which bids us seek Some better shroud. *Milton's Paradise Lost.*

Keen dispatch of real hunger. *Milton.*
To me the cries of fighting fields are charms, *Keen* be my sabre, and of proof my arms. *Dryden.*
A sword *keen-edged* within his right he held, The warlike emblem of the conquered field. *Id.*

The sheep were so *keen* upon the acorns, that they gobbled up a piece of the coat. *I. E. Strange.*

Those curs are so extremely hungry, that they are too *keen* at the sport, and worry their game. *Tatler.*

The sting of every reproachful speech is the truth of it; and to be conscious is that which gives an edge, and *keeness* to the invective. *South.*

I have known some of these absent officers as *keen* against Ireland, as if they had never been indebted to her. *Swift.*

This was a prospect so very inviting, that it could not be easily withheld by any who have so *keen* an appetite for wealth. *Id.*

Nor when cold Winter *keens* the brightening flood, Would I weak shivering linger on the brink. *Thomson.*

So when remote futurity is brought
Before the *keen* inquiry of her thought
A terrible sagacity informs
The poet's heart; he looks to distant storms. *Couper. Table Talk.*

KEEN, or KAYNDUEM, a considerable river, the second in the Birman empire in point of size, is supposed to have its source in the mountains which divide Assam from Ava. It enters the latter country from the north-west, and falls into the Irrawaddy at Miondap, in lat. 21° 45' N. Its mouth is obstructed by sand, which is covered with long grass and reeds, except in the rainy season. It is only navigable therefore for flat-bottomed boats. On its banks are a rude but inoffensive tribe, called Kayns, who speak a different dialect from the Birmans. This country is mountainous, and covered with wood; but it has never been fully explored.

KEEP, v. a. Sax. *cepan*; old Dutch *kepen*. To retain; not to lose.

Keep in memory what I preached unto you. *1 Corinthians.*

We have examples in the primitive church of such as by fear being compelled to sacrifice to strange gods, repented, and *kept* still the office of preaching the gospel. *Whigfile.*

This charge I *keep* till my appointed day
Of rendering up. *Milton.*

His loyalty he *kept*, his love, his zeal. *Id.*

I *kept* the field with the death of some, and the flight of others. *Sidney.*

You have lost a child; but you have *kept* one child, and are likely to do so long. *Temple.*

If we would weigh and *keep* in our minds, what we are considering, that would instruct us when we should, or should not, branch into distinctions. *Locke.*

They warn and teach the proudest would they learn,
Keep wisdom, or meet vengeance in your turn. *Couper. Expostulation.*

To have in custody.

The crown of Stephanus, first king of Hungary, was always *kept* in the castle of Vizegrade. *Knotles.*
She *kept* the fatal key. *Milton.*

To preserve; not to let go.

The Lord God merciful and gracious, *keeping* mercy for thousands, forgiving iniquity. *Erod. xxiv. 7.*

I have spared it greatly, and have *kept* me a grape of the cluster, and a plant of a great people. *2 Esdr. ix. 21.*

To preserve in a state of security.

We passed by where the duke *keeps* his gallies. *Addison.*

To protect; to guard.

Behold I am with thee to *keep* thee. *Gen. xxviii.*

To restrain from flight.

Paul dwelt with a soldier that *kept* him. *Acts xxviii.*

To detain; to hold as a motive.

But what's the cause that *keeps* you here with me? — That I may know what *keeps* me here with you. *Dryden.*

To hold for another.

A man delivers money or stuff to *keep*. *Erod. xxii. 7.*

Reserved from night, and *kept* for thee in store. *Milton.*

To tend; to have care of.

God put him in the garden of Eden to *keep* it. *Gen. ii. 15.*

While in her girlish age she *kept* sheep on the moor, it chanced that a merchant saw and liked her. *Carew.*

Count it thine

To till and *keep*, and of the fruit to eat. *Milton.*

To preserve in the same tenor or state.

To know the true state, I will *keep* this order. *Bacon.*

Take this at least, this last advice, my son,

Keep a stiff rein, and move but gently on:

The coursers of themselves will run too fast,

Your art must be to moderate their haste. *Addison.*

To regard; to attend.

While the stars and course of heaven I *keep*,

My weary'd eyes were seized with fatal sleep. *Dydeu.*

To not suffer to fail.

My mercy will I *keep* for him for ever. *Psalm lxxxix.*

To hold in any state.

Ingenuous shame, and the apprehensions of displeasure, are the only true restraints: these alone ought to hold the reins, and *keep* the child in order. *Locke on Education.*

Men are guilty of many faults in the exercise of this faculty of the mind, which *keep* them in ignorance. *Locke.*

Happy souls! who *keep* such a sacred dominion over their inferior and animal powers, that the sensitive tumults never rise to disturb the superior and better operations of the reasoning mind. *Watts.*

With all my soul !
Keep a firm rein upon these bursts of passion.
Byron. Marino Faliero.

To retain by some degree of force in any place or state. It is often followed in this sense by particles ; as, *down, under, in, off*.

My sone beware and be not auetour newe
 Of tidings, whether they ben false or trewe ;
 Wher so thou come, amonges high or lowe
Kepe wel thy tongue, and thinke upon the crowe.

Chaucer. The Manciple's Tale.

It is hardly to be thought that any governor should so much malign his successor, as to suffer an evil to grow up which he might timely have *kept under* ; or perhaps nourish it with coloured countenance of such sinister means.

Spenser.

What ! old acquaintance ! could not all this flesh
Keep in a little life ! Poor Jack, farewell.

Shakspeare.

The Chinese sail where they will ; which sheweth that their law of *keeping out* strangers is a law of pusillanimity and fear.

Bacon.

Venus took the guard of noble Hector's curse,
 And *kept the dogs off* : night and day applying sovereign force

Of rosy balms, that to the dogs were horrible in taste.

Chapman's Iliad.

And those that cannot live from him asunder,
 Ungratefully shall strive to *keep him under*.

Milton.

This wickedness is found by thee ; no good deeds of mine have been able to *keep it down* in thee.

Sidney.

If any ask me what would satisfy,
 To make life easy, thus I would reply :
 As much as *keeps out* hunger, thirst, and cold.

Dryden.

Matters, recommended by our passions, take possession of our minds, and will not be *kept out*.

Locke.

Prohibited commodities should be *kept out*, and useless ones impoverish us by being brought in.

Id.

An officer with one of these unbecoming qualities is looked upon as a proper person to *keep off* impertinence and solicitation from his superior.

Addison's Spectator.

And if two boots *keep out* the weather,
 What need you have two hides of leather ?

Prior.

We have it in our power to *keep in* our breaths, and to suspend the efficacy of this natural function.

Cheyne.

How much a dunce that has been sent to roam,
 Excels a dunce, that has been *kept at home*.

Couper. Progress of Error.

To continue any state or action.

Men gave ear, waited, and *kept silence* at my counsel.

Job xxix. 21.

Auria made no stay, but still *kept on* his course.

Knolles.

It was then such a calm, that the ships were not able to *keep way* with the gallies.

Id.

The moon that distance *keeps till night*.

Milton.

An heap of ants on a hillock will more easily be *kept to* an uniformity in motion than these.

Glanville's Scopis.

He dyed in fight ;

Fought next my person ; as in consort fought :
Kept pace for pace, and blow for blow.

Dryden.

He, being come to the estate, *keeps on* a very busy family ; the markets are weekly frequented, and the commodities of his farm carried out and sold.

Locke.

Invasive foes without resistance,
 With ease I make to *keep* their distance.

Swift.

To preserve in any state.

My son, *keep* the flower of thine age sound.

Eccles. xxvi.

To practise ; to use habitually.

I rule the family very ill, and *keep* bad hours.

Pope.

To copy carefully.

Her servant's eyes were fixed upon her face,
 And as she moved or turned, her motions viewed,

Her measures *kept*, and step by step pursued.

Dryden.

To observe or solemnise any time.

This shall be for a memorial, and you shall *keep* it a feast to the Lord.

Exod. xii. 14.

That day was not in silence holy *kept*.

Milton.

To observe ; not to violate.

Lord God, there is none like thee : who *keeps* covenant and mercy with thy servants.

1 Kings viii. 23.

Lord God of Israel, *keep* with thy servant that thou promisedst him.

Id. 25

It cannot be,

The king should *keep* his word in loving us ;

He will suspect us still, and find a time

To punish this offence in other faults.

Shakspeare.

Sworn for three years term to live with me,
 My fellow-scholars ; and to *keep* those statutes

That are recorded in this schedule here.

Id.

Obey and *keep* his great command.

Milton.

His promise Palamon accepts ; but prayed

To *keep* it better than the first he made.

Dryden.

My debtors do not *keep* their day,

Deny their hands and then refuse to pay.

Id.

My wishes are,

That Ptolemy may *keep* his royal word.

Id.

To maintain ; to support with necessities of life.

Much more affliction than already felt
 They cannot well impose, nor I sustain,

If they intend advantage to my labours,

The work of many hands, which earns my *keeping*.

Milton.

To have in the house.

Base tyke, call'st thou me host ? I scorn the term
 nor shall my Nell *keep* lodgers

Shakspeare. Henry V.

Not to intermit.

Keep a sure watch over a shameless daughter, lest
 she make thee a laughing-stock to thine enemies, and

a by-word in the city.

Eccles. xli. 11.

Not *keeping* strictest watch as she was warned.

Milton.

To maintain ; to hold.

Some say that laughter here
Keeps residence ; but laughter fits not there,

Where darkness ever dwells, and melancholy fear.

Fletcher's Purple Island.

They were honourably brought to London, where
 every one of them *kept* house by himself.

Hayward.

Twelve Spartan virgins, noble, young, and fair,
 To the pompous palace did resort,

Where Menelaus *kept* his royal court.

Dryden.

To remain in ; not to leave a place.

I pr'ythee tell me, doth he *keep* his bed ?

Shakspeare.

Not to reveal ; not to betray.

A fool cannot *keep* counsel.

Eccles. viii. 17.

Great are thy virtues, though *kept* from man.

Milton.

If he were wise, he would *keep* all this to himself.

Tillotson.

To restrain ; to withhold.

He that me *kepte* fro the false blame,

While I was in the lond amonges you,

He can me kepe fro harme and eke fro shame
In the salt see, although I se not how.

Chaucer. The Man of Lawes Tale.

If any rebel or vain spirit of mine
Did with the least affection of a welcome,
Give entertainment to the might of it,
Let heaven for ever keep it from my head.

Shakspeare.

Some obscure passages in the inspired volume
keep from the knowledge of divine mysteries. *Boyle.*

If the god of this world did not blind their eyes,
it would be impossible, so long as men love themselves,
to keep them from being religious. *Tillotson.*

There is no virtue children should be excited to,
nor fault they should be kept from, which they may
not be convinced of by reasons.

Locke on Education.

If a child be constantly kept from drinking cold li-
quor whilst he is hot, the custom of forbearing will
preserve him. *Locke.*

By this they may keep them from little faults. *Id.*

To debar from any place. *Id.*
I'll fence for heaven to keep out such a foe. *Milton.*

To keep back. To reserve; to withhold.

Whatsoever the Lord shall answer, I will declare;
I will keep nothing back from you. *Jer. xli. 4.*

Some are so close and reserved, as they will not
shew their wares but by a dark light, and seem al-
ways to keep back somewhat. *Bacon's Essays.*

To keep back. To withhold; to restrain.

Keep back thy servant from presumptuous sins. *Psalm xix.*

To keep company. To frequent any one; to
accompany.

Heaven doth know, so shall the world perceive,
That I have turned away my former self;

So will I those that kept me company. *Shakspeare.*
Why should he call her whore? Who keeps her
company?

What place? what time? *Id. Othello.*

What mean'st thou, bride! this company to keep?
To sit up, till thou fain would sleep? *Donne.*

Neither will I wretched thee

In death forsake, but keep thee company. *Dryden.*

To keep company with. To have familiar in-
tercourse.

A virtuous woman is obliged not only to avoid
inmodesty, but the appearance of it; and she could
not approve of a young woman keeping company with
men, without the permission of father or mother.

Broome on the Odyssey.

To keep in. To conceal; not to tell.

I perceive in you so excellent a touch of modesty,
that you will not extort from me what I am willing
to keep in. *Shakspeare.*

Syphax, your zeal becomes importunate;

I have hitherto permitted it to rave,

And talk at large; but learn to keep it in,

Lest it should take more freedom than I'll give it. *Addison.*

To keep in. To restrain; to curb.

If thy daughter be shameless, keep her in straitly,
lest she abuse herself through overmuch liberty.

Ecclesiasticus.

It will teach them to keep in, and so master their
inclinations. *Locke on Education.*

To keep off. To bear to distance; not to ad-
mit.

Then came old January, wrapped well

In many weeds to keep the cold away.

Spenser's Faerie Queene.

To keep off. To hinder.

A superficial reading, accompanied with the com-
mon opinion of his invincible obscurity, has kept off
some from seeking in him the coherence of his dis-
course. *Locke.*

To keep up. To maintain without abatement.

Land kept up its price, and sold for more years
purchase than corresponded to the interest of money
Locke.

This restraint of their tongues will keep up in them
the respect and reverence due to their parents. *Id.*
Albano keeps up its credit still for wine. *Addison.*

This dangerous dissension among us we keep up
and cherish with much pains. *Id. Freeholder.*

The ancients were careful to coin money in due
weight and fineness, and keep it up to the standard.
Arbuthnot.

To keep up. To continue; to hinder from
ceasing.

You have enough to keep you alive, and to keep up
and improve your hopes of heaven. *Taylor.*

In joy, that which keeps up the action is the desire
to continue it. *Locke.*

Young heirs, from their own reflecting upon the
estates they are born to, are of no use but to keep up
their families, and transmit their lands and houses
in a line to posterity. *Addison.*

During his studies and travels he kept up a punctu-
al correspondence with Eudoxus. *Id.*

To keep under. To oppress; to subdue.

O happy mixtme! whereby things contrary do so
qualify and correct the one the danger of the other's
excess, that neither boldness can make us presume,
as long as we are kept under with the sense of our
own wretchedness; nor, while we trust in the mercy
of God through Christ Jesus, fear be able to tyrani-
zine over us. *Hooper.*

Truth may be smothered a long time, and kept under
by violence; but it will break out at last.

Stillingfleet.

To live like those that have their hope in another
life, implies that we keep under our appetites, and do
not let them loose into the enjoyments of sense.

Attelburg.

KEEP, v. n. To remain by some labor or ef-
fort in a certain state.

With all our force we kept aloof to sea,
And gained the island where our vessels lay.

Pope's Odyssey.

To continue in any place or state; to stay.
Thou shalt keep fast by my young men, until they
have ended. *Ruth ii. 21.*

What! keep a week away! seven days and nights?
Fightscore eight hours! and lovers' absent hours,
More tedious than the dial eightscore times?
O weary reckoning! *Shakspeare. Othello.*

I think, it is our way,

If we will keep in favour with the king,

To be her men, and wear her livery.

Shakspeare.

She would give her a lesson for walking so late,
that should make her keep within doors for one
fortnight. *Sidney.*

The necessity of keeping well with the maritime
powers, will persuade them to follow our measures.

Temple.

On my better hand Ascanius hung,
And with unequal paces tript along:

Creusa kept behind. *Dryden's Aeneid.*

The goddess born in secret pined:

Nor visited the camp, nor in the council joined;
But keeping close, his gnawing heat he fed

With hopes of vengeance. *Id. Homer.*

And while it *keeps* there, it *keeps* within our author's limitation. *Locke.*

A man that cannot fence will *keep out* of bullies, and gamesters' company. *Id. On Education.*

There are cases in which a man must guard, if he intends to *keep* fair with the world, and turn the penny. *Collier.*

The endeavours Achilles used to meet with Hector, the contrary endeavours of the Trojan to *keep out* of reach, are the intrigue. *Pope's View of Epic Poetry.*

Deep loneliness hath wrought this mood in thee, For like a cloistered votress, thou hast *kept*, Thy damsels till me, this lone turret's bound. *Bacon.*

Maturin's Bertram.

To remain unhurt; to last; to be durable.

Grapes will *keep* in a vessel half full of wine, so that the grapes touch not the wine. *Bacon.*

Disdain me not, although I be not fair:

Doth beauty *keep* which never sun can burn,

Nor storms do turn! *Sidney.*

If the malt be not thoroughly dried, the ale it makes will not *keep.* *Mortimer's Husbandry.*

To dwell: to live constantly.

A breath thou art,

Servile to all the skiey influences,

That do this habitation, where thou *keepest*,

Hourly afflict. *Shakspeare. Measure for Measure.*

Knock at the study, where, they say, he *keeps*, To ruminate strange plots of dire revenge. *Shakspeare.*

To adhere strictly; with *to*.

Did they *keep* to one constant dress they would sometimes be in fashion, which they never are. *Addison's Spectator.*

It is so whilst we *keep* to our rule; but when we forsake that we go astray. *Baker on Learning.*

To *keep on*. To go forward.

So chearfully he took the doon;

Nor shrunk, nor stopt from death,

But with unaltered pace *kept on.* *Dryden.*

To *keep up*. To continue unsubdued.

He grew sick of a consumption; yet he still *kept up*, that he might free his country. *Life of Cleomenes.*

The general idea of this word is care, continuance, or duration, sometimes with an intimation of cogency or coercion.

KEEP, n. s. From the verb. Custody; guard.

Pan, thou god of shepherds all,

Which of our lambkins takest *keep*. *Spenser.*

The prison strong,

Within whose *keep* the captive knights were laid: Was one partition of the palace-wall. *Dryden.*

Guardianship; restraint.

Youth is least looked into when they stand in most need of good *keep* and regard. *Ascham.*

KEEPER, n. s. From *keep*. One who holds any thing for the use of another.

The good old man, having neither reason to dissuade nor hopes to persuade, received the things with the mind of a *keeper*, not of an owner. *Sidney.*

One who has prisoners in custody.

The *keeper* of the prison, call to him. *Shakspeare.*

Iō now

With horns exalted stands, and seems to lowe:

A noble charge; her *keeper* by her side

To watch her walks his hundred eyes applied *Dryden.*

A pleasant *b*everage he prepared before Of wine and water mixed, with added store Of opium; to his *keeper* this he brought, Who swallowed unaware the sleepy draught. *Id*

Am I then

My brother's *keeper?* *Byron. Cain.*

One who has the care of parks, or beasts of chace.

There is an old tale goes, that Herne the hunter, Sometime a *keeper* here in Windsor forest, Doth all the Winter-time, at still of midnight, Walk round about an oak with ragged horns. *Shakspeare.*

The first fat buck of all the season's sent, And *keeper* takes no fee in compliment. *Dryden.*

One that has the superintendance or care of any thing.

Hilkiah went unto Hildah, *keeper* of the wardrobe.

2 Kings.

The **KEEPER OF THE PRIVY SEAL** is a lord by office, through whose hands all grants, pardons, &c. pass before they come to the great seal; and even some things pass his hands which do not pass the great seal at all. He is also one of the privy council, and was anciently called clerk of the privy seal. His duty is to put the seal to no grant, &c. without a proper warrant; nor with warrant where it is against law, or inconvenient, but shall first acquaint the king therewith.

KEEPERSHIP, n. s. From *keeper*. Office of a keeper.

The gaol of the shire is kept at Launceston: this *keepership* is annexed to the constablership of the castle. *Carew.*

KEEPING, in painting, denotes the representation of objects as a whole, in the same proportions in which they appear to the eye at different distances from it. The famous Raphael twice transgressed these rules; in one of his cartoons, representing the miraculous draught of fishes, the men in each of the boats appearing of a full size, while the boats are represented so small, and the men so big, that any of the fishermen appears sufficient to sink either of the boats by his weight. The other instance occurs in his picture of our Saviour's transfiguration on the Mount; where he is represented with Moses and Elias, &c., almost as large as the rest of his disciples at the foot of the mount, with the father and the mother of a boy whom they brought to be cured; and the mother, though on her knees, is more than half as tall as the mount is high. So that the mount appears only of the size of a little hay-rick, with a few people on its top, and a greater number at its bottom on the ground. See PAINTING.

KEFF, an important town of Tunis, anciently called Sicca, or Sicca Veneria, on the eastern bank of the river Mejerdah. It stands, as its name imports, on the declivity of a hill, in the centre of which is a plentiful spring. In the civil wars of the eighteenth century, the greater part of the citadel was blown up, but it was afterwards rebuilt, with augmented strength. In digging for materials two statues were found, of Venus and Marcus Antoninus. It is seventy miles W.S.W. of Tunis.

KEG, n. s. Fr. *eague*. A small barrel, commonly used for a fish-barrel.

Their stock was damaged by the weather's stress.
Two casks of biscuits, and a *keg* of butter,
Were all that could be thrown into the cutter.

Byron. Don Juan.

KEII, or KEIL, an important fortress of Germany, now belonging to Baden. It was originally a fort and village on the east side of the Rhine, which, in 1678, were taken by storm and rased by the French. The village was then removed, and the fort built at the influx of the Kinzig into the Rhine, on the west side of that river, one mile and a half from Strasburgh. The French took possession of it in 1684, and fortified it very strongly after the designs of M. Vauban. In 1697 it was declared imperial, being ceded to the empire at the peace of Ryswick; when the emperor consigned it to the house of Baden, reserving to himself, however, the right of a garrison. In 1733 it was again taken by the French, but restored at the peace. But, upon the commencement of the late wars, the fortifications were made stronger than ever; notwithstanding which it was taken by the French republicans under general Moreau in 1796; but retaken in December by the Austrians after a long siege. In 1797 the French recovered it, but in May 1799 it was again taken by the Austrians. The French afterwards recovered it, but evacuated it on the 21st of May 1801; when the fort was dismantled, as well as those of Old Brisach, Cassel, Ehrenbreitsten, and Dusseldorf. The French, on resuming the offensive, retook this fort, and continued to possess it till 1814, when it was restored to the grand duke of Baden; at present the bridge here thrown across the Rhine belongs partly to France, and partly to Baden.

KEJ, an important trading town of Persia, the capital of the province of Mekran. It is on the high road from Candahar, Kelat, and other towns on the north, to the seaports of Guatter and Chobar, and encircles a fort built on a high precipice, with a river running beneath. It has maintained a garrison of 5000 men. The vicinity is arid and barren. Long. 62° 30' E., lat. 26° 10' N.

KEILL (James), M. D., an eminent physician, was born in Scotland about 1673; and having travelled abroad, read lectures on anatomy with great applause in the Universities of Oxford and Cambridge, from the latter of which he received the degree of M. D. In 1700 he settled at Northampton, where he had considerable practice as a physician; and died there, of a cancer in his mouth, in 1719. He published, 1. An English translation of Lemery's Chemistry. 2. An Account of Animal Secretion, the Quantity of Blood in the Human Body, and Muscular Motion. 3. A Treatise on Anatomy; and 4, Several pieces in the Philosophical Transactions.

KEILL (John), M. D., elder brother to Dr. James, a celebrated astronomer and mathematician, born in Edinburgh in 1671. He studied in the university of that city, and in 1694 went to Oxford; where, being admitted of Balliol College, he read lectures on the Newtonian system, in his private chamber in that college. He is said to have been the first who taught Sir Isaac Newton's principles by the experiment on which they are founded. This he did by an apparatus

of instruments of his own providing, by which he acquired great reputation in the university. The first specimen he gave the public of his skill in mathematical and philosophical knowledge, was his Examination of Dr. Burnet's Theory of the Earth, with Remarks on Mr. Whiston's Theory: and these theories being defended by their respective inventors, drew from Mr. Keill An Examination of the Reflections on the Theory of the Earth, together with A Defence of the Remarks on Mr. Whiston's New Theory. In 1701 he published his celebrated treatise intitled, *Introductio ad Veram Physicam*, which contains fourteen lectures; but in the following editions he added two more. This work has been translated into English, under the title of an *An Introduction to Natural Philosophy*. Afterwards, being made F. R. S., he published, in the Philosophical Transactions, a paper on the laws of attraction; and, being offended at a passage in the *Acta Eruditorum* of Leipsie, warmly vindicated, against Mr. Leibnitz, Sir Isaac Newton's right to the honor of the first invention of his method of fluxions. In 1709 he went to New England as treasurer of the Palatines. About 1711 objections being urged against Newton's philosophy, in support of Des Cartes's notions of a plenum, Mr. Keill published a paper in the Philosophical Transactions on the rarity of matter, and the tenuity of its composition. While he was engaged in this dispute, queen Anne appointed him her decypherer; and he continued in that place till 1716. He had also the degree of M. D. conferred on him by the University of Oxford in 1713. He died in 1721. He published also *Introductio ad veram Astronomiam*, which he translated into English; and an edition of Commandinus's *Euclid*, with additions of his own.

KEITH (James Francis Edward), field-marshal in the Prussian service, was the younger son of William Keith, earl marshal of Scotland; and was born at Inverugie in 1696. He was designed by his friends for the law; but his inclination led him to arms. When the rebellion broke out in Scotland, in 1715, through the instigation of his mother, he joined James's party; was wounded at the battle of Sheriff-muir, and made his escape to France. Here he applied himself to military studies; and going to Madrid, by the interest of the duke of Liria, obtained a commission in the Irish brigades, then commanded by the duke of Ormond. He afterwards attended the duke of Liria, when he went ambassador to Muscovy; and, being by him recommended to the empress Catharine I., was promoted to the rank of lieutenant-general, and invested with the order of the black eagle. He distinguished himself by his valor and conduct in the Russian service, and had no inconsiderable share in the revolution that raised Elizabeth, the daughter of Peter the Great, to the throne; he also served in several embassies; but finding the honours of that country but a splendid kind of slavery, he left that court and entered the Prussian service. The king of Prussia made him field-marshal of the Prussian armies, and governor of Berlin; and distinguished him so far by his confidence, as to travel in disguise with him over

great part of Germany, Poland, and Hungary. In business he made him his chief counsellor; in his diversions, his chief companion. The king was much pleased with an amusement which the marshal invented in imitation of the game at chess. He ordered several thousand small statues of men in armor to be cast by a founder; these he would set opposite to each other, and ranged them in battalia, as if he had been drawing up an army; would bring out a party from the wings or centre, and show the advantage or disadvantage resulting from the different movements. This brave and experienced general, after many important services in the various wars of that illustrious monarch, was killed at the fatal battle of Hochkirchen, on the 14th of October, 1758.

KEITH (Thomas), a celebrated mathematician and author of many distinguished works, was a native of Bransburton, near Beverley, in Yorkshire, and born on the 22d of September, 1759. He received the rudiments of his education in the free school at that place. At the age of fourteen years, his parents dying, leaving him with but slender pecuniary means, he was compelled to engage himself as tutor in a private family, in which situation he had frequent opportunities of pursuing his mathematical studies. In the year 1781 he quitted the country, and settled in London. In 1789 he published his first volume, *An Introduction to the Science of Geography*. In 1796 was published his *New Schoolmaster's Assistant*, which, after passing through two editions, was suppressed to make room in 1799 for *The Complete Practical Arithmetician*. To this work a key was afterwards published for the use of tutors. Besides the works already mentioned, Mr. Keith published, in 1801, *An Introduction to the Theory and Practice of Plane and Spherical Trigonometry*; in 1805, a *Treatise on the Use of the Globes*; and, in 1814, *The Elements of Geometry*. He also superintended several editions of Paterson's *Book of Roads*, and of Hawney's *Complete Measurer*, and was the contributor of valuable papers to the various mathematical periodicals. Mr. Keith declined accepting any public mathematical situation, but in his capacity as a private tutor contributed largely to the public good by the application of his knowledge and acquirements to works of practical utility. He was, however, accountant to the British Museum, and for many years secretary to the master of his late majesty's household. In 1810, with the approbation of her majesty queen Charlotte and the prince regent, he was appointed professor of geography and the sciences to the late lamented princess Charlotte of Wales, from whom, and from her royal highness the princess Sophia Matilda (who with many other distinguished personages received the benefit of his scientific acquirements), he received many flattering marks of attention and respect. In the month of November, 1822, he was afflicted with an internal disorder, which ultimately caused his death. He ended his life on the 29th of June 1824, with the most perfect composure and resignation, and retained, almost to the last hour of his existence, the exercise of those strong mental faculties, and of those kind

and gentle manners which so much endeared him to his family, his friends, and his acquaintances. Up to the period of his death he was engaged in writing a new work on the *Science of Geography*, which his friends have recently completed and published.

KELAT, the capital of Baloochistan, and residence of its sovereign Mahmoud Khan. See *BALOOCHISTAN*. It stands on a high hill surrounded by a mud wall; the houses are built of half-burnt brick; the upper stories nearly joining across the streets; which are narrow and unpaved. It is notwithstanding populous, and contains 4000 houses, several good bazaars, and some fine gardens. The inhabitants are a mixture of Afghans, Balouches, and Hindoos. The last are the principal merchants. Long. $67^{\circ} 57'$ E., lat. $29^{\circ} 6' N.$

KELL, n. s. The omentum; that which enwraps the guts.

The very weight of bowels and *kell*, in fat people, is the occasion of a rupture. *Wiseman's Surgery*.

KELLERMAN (Francis Christopher), duke de Valmy, peer and marshal of France, &c., was born at Strasburgh in 1735, and entered into the army at the age of seventeen. Having given various proofs of his talents and courage, in the seven years' war, he was rapidly promoted, till in 1788 he was made quarter-master-general. Adopting the principles of the revolution, he was in 1792 appointed commander of the army of Moselle, and then effected a junction with Dumourier, on the plain of Champagne. On the 17th of September he distinguished himself by his defence of the position of Valmy. He next served under Custine, who denounced him to the Convention; and, though he justified himself against the accusation, similar attacks followed him, and he was arrested and confined in the military prison of the abbey. On his trial, after the expiration of the reign of terror, he was fully acquitted, and in 1795 took the command of the army of the Alps and Italy; in which he was superseded by Buonaparte. In 1798 he was nominated a member of the military board, and in 1801 was president of the conservative senate, and the following year a marshal of the empire. Under Napoleon he served in Germany and Prussia; and, having in 1814 voted for the restoration of royalty, was employed under the Bourbons till his death in 1820.

KELLISON (Matthew), a celebrated Roman Catholic divine, was born in Northamptonshire in 1560, and took his doctor's degree at Rheims, where he was rector of the university. Hence he removed Douay, and became president of the English college. He died in 1641. His works are—1. *Survey of the New Religion*; 2. *Reply to Sutcliffe*; 3. *Oratio coram Henrico IV. rege Christianissimo*; 4. *The Gagg of the Reformed Gospel*; 5. *Examen Reformationis*; 6. *The Right and Jurisdiction of the Prince and Prelate*; 7. *A Treatise on the Hierarchy of the Church*; 8. *A Brief and Necessary Instruction for the Catholics of England*; 9. *Comment, in tertiam partem Summae Sancti Thomæ*.

KELLS, a Market town of Ireland, in the county of Meath, Leinster, thirty-one miles from Dublin. This town is pleasantly situated on the

Blackwater, and has four fairs. It was anciently called Kenanus, afterwards Kenlis, and was one of the most famous cities in the kingdom. On the arrival of the English, it was walled and fortified with towers. In 1178 a castle was erected where the market-place now is; and opposite to it was a cross of one entire stone, ornamented with bas-relief figures, and many curious inscriptions in the ancient Irish character. Near it was the church of St. Senan; and on the south of the churchyard is a round tower which measures ninety-nine feet from the ground, the roof ending in a point. A celebrated monastery, founded here in 550 for regular canons, was dedicated to the Virgin. It owed its origin to St. Columba, to whom the site of the abbey was granted by Dermod king of Ireland.

KELLS, an ancient town of Ireland, in Kilkenny, seventy-five miles from Dublin, seated on King's River; and noted for a priory of Augustines, built and richly endowed by Geoffroy Fitz Roberts, who came over from Wales with Strongbow. The prior sat as one of the lords spiritual in the house of peers before the Reformation. The ruins only of this abbey now remain: a synod was held in it in 1152, when John Paparo, legate from Rome, was one of the bishops that were convened there to settle the affairs of the church. The present church is built in the Gothic manner. Fair held 13th of July.

KELLS is also the name of a town of Antrim, one hundred and five miles from Dublin, principally celebrated for the ruins of Templemoge Abbey, which are supposed to have had a mural communication with the ancient remains of Connor. The beautiful moat of Kells is situated on a height recently planted above Kells-water, a rapid but generally shallow mountain stream which is a chalybeate water, containing excellent trout.

KELLY (Michael), the son of a wine merchant of Dublin, who for many years acted, as master of the ceremonies at the Vice-regal castle. He was born in 1762, and at an early age gave proofs of a genius for music, which induced his father to place him under Rauzzini, at this time in Dublin, who prevailed on his friends to send him to Naples, where he arrived in his sixteenth year. Here he was much patronised by Sir William Hamilton, the British minister, and studied under Fineroli, at the Conservatorio La Madona della Loretto. He also received lessons from Aprili, the first singing master of his day, who procured him an engagement at Leghorn. He subsequently performed at most of the Italian theatres, and in Germany; and contracted a close intimacy during his stay at Vienna with the celebrated Mozart. The emperor Joseph became his patron: but having obtained permission for a year's absence, in order to visit his friends in Ireland, he settled in London. In April 1787 he made his first appearance at Drury Lane Theatre as Lionel, in the opera of Lionel and Clarissa, and retained his situation as first-singer at that theatre, till his final retirement from the stage. He furnished, in 1797, the music to *A Friend in Need*; *The Castle Spectre*; &c.; which in the succeeding year he followed up by

the most popular of his compositions, the airs marches, &c., in Colman's musical romance of Bluebeard. From this period till 1819 he wrote upwards of sixty successful pieces. He wrote also an amusing work entitled *Reminiscences*, 2 vols. 8vo. His death took place at Ramsgate on the 15th of October, 1826.

KELP, *n. s.* Perhaps from kali. A salt produced from calcined sea-weed,

In making alum, the workmen use the ashes of a sea-weed called kelp, and urine. *Boyle on Colours*.

KELP, in the glass trade, the name of a sort of potassa made use of in many of the glass works, particularly for the green glass. It is the calcined ashes of a plant called by the same name; and in some places of sea thongs, a sort of thick-leaved fucus, or sea wrack. See FUCUS. The process of making it is this: the rocks, which are dry at low water, are the beds of great quantities of sea-weed; which is cut, carried to the beach, and dried; and a hollow is dug in the ground three or four feet wide; round its margin is laid a row of stones, on which the sea-weed is placed, and set on fire within; and, quantities of this fuel being continually heaped upon the circle, there is in the centre a perpetual flame, from which a liquid-like melted metal drops into the hollow beneath: when it is full, as it commonly is ere the close of day, all heterogeneous matter being removed, the kelp is wrought with iron rakes, and brought to a uniform consistence in a state of fusion. When cool, it consolidates into a heavy dark-colored alkaline substance, which undergoes in the glass houses a second vitrification, and assumes a perfect transparency. See GLASS.

KELSO, a town in the county of Roxburgh, pleasantly situated on the Tweed. It is built much after the manner of a Flemish town, with a square and town-house. It has a very considerable market, wherein great quantities of corn are sold weekly. The abbey of the Tyronians was a vast pile, and, to judge by the remains, of venerable magnificence. The walls are ornamented with false round arches, intersecting each other in the form of a true Gothic arch. The steeple of the church is a vast tower. This house was founded by David I. when earl of Cumberland. He first placed it at Selkirk, then removed it to Roxburgh, and finally, when he came to the crown, fixed it here in 1128. Its revenues were in money about £2000 Scots a year. The abbot was allowed to wear a mitre and pontifical robes, to be exempt from episcopal jurisdiction, and to be present at all general councils. The environs of Kelso are very fine; the lands consist of gentle risings, enclosed with hedges, and extremely fertile. From the Chalkheugh is a fine view of the forks of the rivers, Roxburgh hill, and in the distance Fleurus. Much wheat is raised in the neighbourhood, part of which is sent up the Frith of Forth, and part into England. The fleeces are very fine. The wool is sent into Yorkshire, to Linlithgow, or into Aberdeenshire, for the stocking manufacture; and some is woven here into a cloth called plains, and sold into England to be dressed. Here is also a considerable manufacture of white leather, chiefly sent to Edinburgh. At Kelso there was

a fine stone bridge of six arches over the Tweed, near its confluence with the Teviot; which was carried away by a flood in 1798, but has since been rebuilt. There are two fairs and a weekly market, besides twelve high market days in the year. Kelso is twenty miles west of Berwick, and 256 N.N.W. of London.

KELSON, *n. s.* More properly keelson. The wood next the keel.

We have added close pillars in the royal ships, which, being fastened from the *kelson* to the beams of the second deck, keep them from settling, or giving way. *Raleigh.*

KELTER, *n. s.* He is not in kelter, that is, he is not ready; from Dan. *kilter* to gird.

KEMAON, a district of Hindostan, subject to Nepaul and the British, situated principally between 29° and 30° N. lat., and 79° and 81° E. long. The northern or mountainous part of this country belongs to the rajah: the southern, or flat part, is now attached to the British territory of Bareilly. It is mostly a hilly country; composed of a fine rich soil, covered with verdure, and forest trees. The valleys are also productive and watered by numerous rivers. The chief town is Almora.

To KEMB, *v. a.* Saxon *cœmban*; German *kammen*: now written, perhaps less properly, to comb. To separate or disentangle by a denticulated instrument.

Yet are the men more loose than they,
More *kembed* and bathed, and rubbed and trimmed,
More sleek. *Ben Jonson.*

Thy head and hair are sleek;
And then thou *kemb'st* the tuzzes on thy cheek.
Dryden.

KEMBLE (John Philip), one of the most celebrated of English tragedians, was the eldest son of Mr. Roger Kemble, the manager of a company of comedians in the north of England, and born at Prescot in Lancashire, February 1st 1757. He received his early education at the Roman Catholic Seminary of Sedgley-park, Staffordshire, whence he proceeded to Douay, with a view to the clerical profession. Here he evinced an early attachment to elocution; but preferring the stage to other pursuits he entered upon that line at Liverpool. After performing in the country with great reputation; he appears on the boards of Drury Lane, September 30th 1783, in the character of Hamlet. From that time he maintained the character of the first English tragedian of his age. On the secession of Mr. King, he became manager of Drury Lane. In 1802 he visited the French and Spanish theatres, with a view to the improvement of his own: and on his return became manager of Covent Garden, where he continued till 1809, when that building was destroyed by fire. On its restoration Mr. Kemble was involved in a series of disputes with the public, called the O. P. riots, and at length worsted in his attempts to raise the prices. Mr. Kemble took farewell of the stage on the 23rd of July 1817, on which occasion he was complimented with a public dinner. He shortly after retired to the continent where he died at Lausanne in Switzerland,

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February 26th, 1823, of a paralytic attack, after a few hours' illness.

KEMMOO, a town of Western Africa, the capital of the state of Kaarta, situated in an open plain. Park was here well received by the king, who was not to be distinguished from his subjects by his dress. A bank of earth, about two feet high, with a leopard's skin spread over it, being the only badge of royalty. Long. $7^{\circ} 46'$ W., lat. $14^{\circ} 20'$ N.

KEMP (Joseph), Mus. D., a musical composer of considerable celebrity, was born at Exeter in 1778, and educated there by Jackson. In 1802 he was organist at Bristol cathedral; and in 1809 proceeded to the degree of Mus. D. at Cambridge; when his exercise entitled The Crucifixion was performed and much admired. He now became a lecturer at several institutions of the metropolis, and invented a new mode of teaching the science. In 1818 he visited the continent, and on his return went to reside in his native city. In April 1824 he came back to London, and died there on the 22nd of the following month. His works are; 1. A new System of Musical Education, being a Self-Instructor; 2. Twenty Psalmical Melodies: 3. The Jubilee, a Patriotic Entertainment; 4. The Siege of Isca, an opera; 5. The Vocal Magazine; 6. Songs, Glees, Duets, &c.

KEMPELEN (Wolfgang de), an ingenious Hungarian gentleman and mechanician, the inventor of the celebrated automaton chess-player, was born at Presburg, and became first known to the public by the announcement of that invention in 1769. He was at that time aulic counsellor of the royal chamber of Hungary to the empress Maria Theresa. See our article AUTOMATON.

In that article we have given the statement of a gentleman who took great personal pains to investigate the mystery of the chess-player of Kempelen; and who nearly satisfied himself and us that, in point of fact, it is an imposition on the public. We have since had an opportunity of examining more accurately the pamphlet alluded to in the close of our article: and remembering that Dr. Hutton has denominated this, if altogether a mechanical contrivance, 'the greatest master-piece of mechanics that ever appeared in the world,' think the reader may be gratified by a reference to figures, and the following further explanation of the possible concealment of a living person:—

Fig. 1, plate KEMPELEN'S CHESS-PLAYER. A perspective view of the automaton, seen in front, with all the doors thrown open.

Fig. 2. An elevation of the back of the automaton.

Fig. 3. An elevation of the front of the chest, the dotted lines representing the player in the first position.

Fig. 4. A side elevation, showing the player in the same position.

Fig. 5. A front elevation, showing the second position.

Fig. 6. An horizontal section through the line WW, fig. 5.

Fig. 7. A front elevation, showing the third position.

Fig. 8. A side elevation of the same position.

Fig. 9. A vertical section through the line X X,
fig. 8.

Fig. 10. A vertical section through the line Y Y,
fig. 7, showing the false back closed.

Fig. 11. A similar section, showing the false
back raised

The following letters of reference are employed
in all the figures.

- A Front door of the small cupboard.
- B Back door of ditto.
- CC Front doors of large cupboard.
- D Back door of ditto.
- E Door of ditto.
- F Door in the thigh.
- GG The drawer.
- II Machinery in front of the small cupboard.
- I Screen behind the machinery.
- K Opening caused by the removal of part of
the floor of the small cupboard.
- L A box which serves to conceal an opening
in the floor of the large cupboard, made to
facilitate the first position; and which also
serves as a seat for the third position.
- M A similar box to receive the toes of the
player in the first position.
- N The inner chest, filling up part of the
trunk.
- O The space behind the drawer.
- PQ The false back turning on a joint at Q.
- R Part of the partition formed of cloth
stretched tight, which is carried up by the
false back, to form the opening between the
chambers.
- S The opening between the chambers.
- T The opening connecting the trunk and
chest, which is partly concealed by the false
back.
- U Panel which is slipped aside to admit the
player.

'The exhibitor, in order to show the mechanism, as he informs the spectators, unlocks the door A, fig. 1, of the chest, which exposes to view a small cupboard, lined with black or dark colored cloth, and containing different pieces of machinery, which seem to occupy the whole space. He next opens the door, B, fig. 2, at the back of the same cupboard, and holding a lighted candle at the opening, still further exposes the machinery within. The candle being withdrawn, the door B is then locked. The drawer, G G, fig. 1, in the front of the chest, is then opened, and a set of chess men, a small box of counters, and a cushion for the support of the automaton's arm are taken out of it. The exhibitor now opens the two front doors, C C, fig. 1, of the large cupboard, and the back door D, fig. 2, of the same, and applies a candle, as in the former case. This cupboard is lined with cloth like the other, but it contains only a few pieces of machinery. The chest is now wheeled round, the garments of the figure lifted up, and the door E, fig. 2, in the trunk, and another, F, in the thigh, are opened. But it must be observed, that the doors, B and D, are closed. The chest is now restored to its former position on the floor; the doors in front, and the drawer, are closed and locked; and the exhibitor, after he

has occupied some time at the back of the chest, in apparently adjusting the machinery, removes the pipe from the hand of the figure, winds up the works, and the automaton begins to move.

Our author after pointing out the extreme difficulty of executing the movements of the chess player by machinery alone, and the regular and undeviating mode of disclosing the interior of the chest; shows that the various facts which have been observed respecting the winding up of the machine, 'afford positive proof that the axis turned by the key is quite free and unconnected either with a spring or a weight, or any system of machinery.' He then suggests a method by which any person well skilled in the game, and not exceeding the ordinary stature, may secretly animate the automaton, and imitate the movements of the chess-player. This method will be best understood from the following extract:—

'The drawer, G G, fig. 10, when closed, does not reach to the back of the chest; it leaves a space, O, behind it, about one foot two inches broad, eight inches high, and three feet eleven long. This space is never exposed to view. The small cupboard is divided into two parts by the door or screen, I, fig. 6, which is moveable on a hinge, and is so contrived that, when B is closed, this screen may be closed also. The machinery, II, occupies the whole of the front division as far as I; the hinder division is nearly empty, and communicates with the space behind the drawer, the floor of this division being removed. The back of the great cupboard is double, and the part, PQ, to which the quadrants, &c., are attached, moves on a joint Q, at the upper part, and forms, when raised, an opening, S, between the two cupboards, by carrying with it part of the partition, R, which is composed of cloth stretched tight. Fig. 10 shows the false back closed. Fig. 11 shows the same raised, forming the opening S, between the chambers.'

'When the trunk of the figure is exposed, by lifting up the dress, it will be seen that a great part of it is occupied by an inner trunk, N, which passes off towards the back in the form of an arch, fig. 2, and conceals a portion of the interior from the view of the spectators. This inner trunk opens to the chest by an aperture, T, fig. 9, about one foot three inches high, by one foot broad. When the false back is raised, the two chambers, the trunk, and the space behind the drawer, are all connected together.'

'The player may be introduced into the chest through the sliding panel U, fig. 6, at the end. He will then elevate the false back of the large cupboard, and assume the position represented by the dotted lines in figs. 3 and 4. Every thing being thus prepared, 'the charm's wound up,' and the exhibitor may begin his operations by opening the door, A. From the crowded and very ingenious disposition of the machinery in this cupboard, the eye is unable to penetrate far beyond the opening, and the spectator is led to conclude that the whole space is occupied with a similar apparatus. This illusion is strengthened and confirmed by observing the glimmering light which plays among the intricacies of the machinery, and occasionally meets

the eye, when the lighted candle is held at the door, B. A fact, too, is ascertained, which is equally satisfactory, though for opposite reasons, to the spectator and the exhibitor, viz. that no opaque body of any magnitude is interposed between the light and the spectator's eye. The door, B, must now be locked, and the screen, I, closed, which, being done at the moment the light is withdrawn, will wholly escape observation.

'It has been already mentioned, that the door, B, from its construction, closes by its own weight; but as the player's head will presently be very near it, the secret would be endangered, if, in turning round the chest, this door were, by any accident, to fly open; it becomes necessary, therefore, 'to make assurance doubly sure,' and turn the key. If the circumstance should be observed, it will probably be considered as accidental, the keys being immediately wanted for the other locks. The opening, B, being once secured, and the screen, I, closed, the success of the experiment may be deemed complete. The secret is no longer exposed to hazard; and the exhibitor is at liberty to shape his conduct in any way he may think most likely to secure the confidence of the spectators, and lead them insensibly from the main object of pursuit. The door, A, may safely be left open; this will tend to confirm the opinion, which the spectators probably formed on viewing the candle through this cupboard, that no person was concealed within it: it will assure them that nothing can pass in the interior without their knowledge, so long as this door continues open. The drawer stands next in the order of succession: it is opened, apparently for the purpose of taking out the chess men, cushion, &c., but really to allow time for the player to change his position (see fig. 5), and to replace the false back and partition, preparatory to the opening of the great cupboard.

'The machinery is so thinly scattered over this cupboard, that the eye surveys the whole space at one glance, and it might seem unnecessary to open a door at the back, and to hold a lighted candle there, as in the former instance; but the artifice is dictated by sound policy, which teaches that the exhibitor cannot be too assiduous in affording facilities to explore every corner and recess, which, he well knows, contains nothing that he is desirous of concealing. The chest may now be wheeled round for the purpose of showing the trunk of the figure; leaving, however, the front doors of the great chamber open. The bunch of keys, too, should be suffered to remain in the door, D; for the apparent carelessness of such a proceeding will serve to allay any suspicion which the circumstance of locking the door, B, might have excited, more especially as the two doors resemble one another in point of construction. When the drapery has been lifted up, and the doors in the trunk and thigh opened, the chest may be returned to its former situation, and the doors ~~be~~ closed. In the mean time the player should withdraw his legs from behind the drawer, as he will not so easily effect this movement after the drawer has been pushed in.'

'Here let us pause a while, and compare the real state of the chest at this time, with the impression which, at a similar period of an exhibition of the chess-player, has generally been left on the minds of the spectators; the bulk of whom have concluded that each part of the chest had been successively exposed; and that the whole was at that time open to inspection; whereas, on the contrary, it is evident that some parts had been entirely withheld from view, others but obscurely shown, and that nearly half of the chest was then excluded from their sight. Hence we learn how easily, in matters of this sort, the judgment may be led astray by an artful combination of circumstances, each assisting the other towards the attainment of one object.'

'When the doors in front have been closed, the exhibitor may occupy as much time as he finds necessary, in apparently adjusting the machinery at the back, whilst the player is taking the position described in figs. 7 and 8. In this position he will find no difficulty in executing every movement required of the automaton: his head being above the table, he will see the chess-board through the waistcoat as easily as through a veil; and his left hand extending beyond the elbow of the figure, he will be enabled to guide its hand to any part of the board, and to take up and let go a chess man with no other 'delicate mechanism' than a string communicating with the finger. His right hand, being within the chest, may serve to keep in motion the contrivance for producing the noise, which is heard during the moves, and to perform the other tricks of moving the head, tapping on the chest, &c. In order to facilitate the introduction of the player's left arm into the arm of the figure, the latter is obliged to be drawn backwards; and, to account for and conceal this strained attitude, a pipe is ingeniously placed in the automaton's hand. This pipe must not be removed till the other arrangements are completed. When all is ready, and the pipe removed, the exhibitor may turn round the winder, to give the impression to the spectators of winding up a spring, or weight, and to serve as a signal to the player to set the head of the automaton in motion. The above process is simple, feasible, and effective; showing indisputably that the phenomena may be produced without the aid of machinery, and thereby rendering it probable that the chess-player derives its merit solely from the very ingenious mode by which the concealment of a living agent is effected.'

De Kempelen published *La Mecanisme de la Parole, Suivi de la Description d'une Machine Parlante, et enrichi de vingt-et-sept Planches*, Vienne, 1791, 8vo. printed in French: also a drama, called *Perseus and Andromeda*; the Unknown Benefactor, a comedy, &c. In addition to the machines mentioned in the article AUTOMATON, he likewise made a printing press for the use of Madame Pardies, a blind musician. He died in Vienna in 1804.

KEMPIS (Thomas à), a pious and learned regular canon, born at the village of Kemp, in the diocese of Cologne, in 1320; from which he took his name. He studied at Deventer, in the community of poor scholars established by Ge-

lard Groot; where he made great progress in the sciences. In 1399 he entered the monastery of the regular canons of Mount St. Agnes, near Zwoll, of which his brother was prior. Thomas à Kempis there distinguished himself by his eminent piety, his respect for his superiors, his charity to his brother canons, &c. He died in 1471, aged seventy. The best editions of his works, which consist of sermons, spiritual treatises, and lives of holy men, are those of Paris in 1649, and of Antwerp in 1607. The famous book de Imitatione Christi, which has been translated into almost all languages, having been found printed under the name of Gerson, has been, on this account, as on the credit of some MSS., since ascribed to the abbot Gerson. This occasioned a violent dispute between the canons of St. Augustine and the Benedictines.

KEMPTEN, the ancient Campodunum, a town of the Bavarian states, on the Iller. It consists of the old town, and the Stifts-stadt, and contains altogether 5300 inhabitants. Here is an aqueduct: manufactures of cotton and linen, and some trade on the Iller. The two parts of the town were formerly distinct, the old town having no territory but a good trade; while the Stifts-stadt, which stands on an eminence, was the seat of the abbey. In 1802 both the abbey and town were made over to Bavaria. Sixty-six miles W.S.W. of Munich, and fifty south by east of Ulm.

KEN, *v.a. & n.s.* Sax. *cennan*; Goth. *kenna*; Belg. *kennēn*. To know; to see at a distance; to descry; to know. Ken, a view or sight.

Colin! thou *kenst* the southerne shepheard's boy
Him love that wounded with a dealy darte,

Whilome on him wos all my care and ioye
Forcing with giftes to win his wanton heart.

Spenser's Shepheard's Calendar.

'Tis he, I *ken* the manner of his gait.

Shakspeare.

Lo! within a *ken* our army lies. *Id. Henry IV.*
When from the mountain top Pisano shewed thee,
Thou wast within a *ken*. *Id. Cymbeline.*

The next day about evening we saw, within a
kenning, thick clouds, which did put us in some hope
of land. *Bacon.*

At once as far as angels *ken*, he views

The dismal situation waste and wild. *Milton.*

It was a hill

Of paradise the highest; from whose top
The hemisphere of earth, in clearest *ken*,
Stretched out to the amplest reach of prospect, lay.

Id.

He soon

Saw within *ken* a glorious angel stand. *Id.*
Coasting they kept the land within their *ken*,
And knew the North but when the pole-star shone.

Dryden.

If thou *ken'st* from far,

Among the Pleiads, a new-kindled star;

'Tis she that shines in that propitious light. *Id.*

When we consider the reasons we have to think,
that what lies within our *ken* is but a small part of
the universe, we shall discover an huge abyss of
ignorance. *Locke.*

We *ken* them from afar, the setting sun

Plays on their shining arms. *Addison.*

Now plain I *ken* whence love his rise begun:
Sure he was born some bloody butcher's son,
Bred up in a shambles. • *Gay's Pastorals.*

KEN (Thomas), an eminent English bishop, in the seventeenth century, who was educated at Winchester school, whence he went to Oxford; and in 1669 was made a prebend of Winchester. He was appointed by king Charles II. to attend lord Dartmouth at the demolishing of Tangier; and at his return was made chaplain to the king, as he was some time after to the princess of Orange. In Jan. 1685 he was made bishop of Bath and Wells. The month following he attended king Charles II. at his death, for three whole days and nights. In James the Second's reign he zealously opposed the progress of popery; and in June, 1688, he with five other bishops, and the archbishop of Canterbury, was committed prisoner to the Tower of London, for subscribing a petition to his majesty against the declaration of indulgence. Upon the Revolution, however, he refused to take the oaths to king William and queen Mary, on which account he was deprived of his bishopric. Queen Anne bestowed on him a yearly pension of £200 to his death, in 1710. He published several pious works.

KENDAL, a market town of Westmoreland, seated in a valley, among hills, on the west side of the Ken, over which there are two stone bridges, and one of wood, which leads to the castle, now in ruins. It is a large handsome place; and has two fine long streets, crossing each other. The inhabitants have carried on the cotton and woollen manufactory ever since the reign of Edward III., and laws were enacted for regulating Kendal cloths as early as Richard II. and Henry IV. It is also famous for the manufactory of cottons, druggets, serges, hats, worsted and yarn stockings, &c. Queen Elizabeth incorporated it with aldermen and burgesses; and king James I. with a mayor, recorder, town-clerk, twelve aldermen, twenty-four burgesses, or common council-men, and two attorneys. There are seven companies, viz. mercers, shearers, cordwainers, glovers, tanners, tailors, and pewterers. It has an elegant town-hall, and a court of conscience for debts under 40s. It has a large beautiful church, which stands on the other side of the brook called Blindbeck, out of the liberty of the town: a large and handsome Gothic fabric, 180 feet long and ninety-nine broad, with five aisles, each parted by a row of eight pillars, and a strong square steeple. Near it is Abbot's Hall, the residence of the abbot when this church belonged to an abbey dissolved by Henry VIII. In 1755 a new chapel was erected in the middle of the town, and twelve chapels of ease belong to it. Here are several public and private charitable institutions, viz. Sandy's Hospital and Charity School, founded in 1670; the Blue-coat school, for fifty boys and forty girls; a school of Industry, built in 1799; a dispensary, erected in 1782; and the workhouse, which is at the northwest end of the town, and is very commodious. The newspaper published here is of long standing, and a subscription book-club has been long established. Here is also a free grammar-school well endowed. Eastward of the town on the opposite side of the river on hill, whence is a fine prospect, stand the ruins of a castle, wherein

was born Catharine Parr, the sixth wife of Henry VIII. By the inland navigation, it has communication with the rivers Mersey, Dee, Ribble, Ouse, Trent, Severn, Humber, Thames, Avon, &c., extending above 500 miles in the counties of Lincoln, Nottingham, York, Lancaster, Chester, Stafford, Warwick, Leicester, Oxford, Worcester, &c. The sessions of the peace for this part of the county, called the barony of Kendal, are held in this town; and there is a very good market on Saturday, for all kinds of provisions and for woollen yarn. It has fairs May 6th, and November 8th: and between them a great market for black cattle every fortnight. Kendal sends one member to parliament. Returning officer, the mayor of the town.

KENE, or KENNE, a considerable place of Upper Egypt, which now forms the centre of its trade. The goods destined for India are brought up the Nile to this place in boats, where they are landed and carried over land to Cosseir, and embarked on the Red Sea. The goods from India are also landed at Cosseir, and brought to Kene. It is however chiefly supported by the great caravan from Western and Central Africa which passes annually through it, and brings numerous pilgrims for Mecca and Medina. Those cities, as well as their port, Jidda, being situated in a very barren country, the pilgrims are obliged to supply themselves at Kene. Long. $32^{\circ} 27' E.$, lat. $26^{\circ} 9' 36'' N.$

KENHAWAY, a large river of the United States, in Virginia, which is formed by the Kenhaway Proper, and the Green Briar rivers. The former rises in North Carolina, in $36^{\circ} N.$ lat. to the east of the Alleghany Mountains. Its course is first nearly north, passing into the Alleghany valley obliquely. It then follows the range of the valley, and at a distance of about forty miles enters Virginia, and, continuing sixty miles north-east to Inglistowne, then turns north-west by north, enters Cumberland valley, over which it meanders about seventy miles, and receives, from the north-east, Green Briar River. Below their junction, the Great Kenhaway flows north-west forty or fifty miles, and passes Cumberland mountain by considerable falls. A rock, a little elevated in the middle, crosses the bed of the river, over which the water shoots, and falls about fifty feet perpendicularly, except at one side, where the descent is more gradual. Below these falls the stream, upwards of 300 yards wide, pursues nearly a north course for 100 miles, and falls into the Ohio at Point Pleasant, in lat. $38^{\circ} 55' N.$ The Great Kenhaway is 196 miles below Pittsburg, and navigable to the great falls most of the year.

KENHAWAY, LITTLE, a smaller river of the United States, in Virginia, which rises among the Alleghany Mountains, west of Chestnut ridge, or Cumberland Mountain. It is 150 yards wide at its mouth, and is navigable only ten miles. It falls into the Ohio at Parkersburg.

KENILWORTH, or KILLINGWORTH, is a market-town of England, in the county of Warwick, consisting chiefly of an irregular street, nearly a mile in length. The church is an ancient building, with a spire; and there are two dissenting meeting-houses. A manufacture of horn combs is carried on here, but the town is

chiefly noted for its magnificent castle, which formed at one time the pride and ornament of this part of the kingdom. The remains present one of the most splendid and picturesque wrecks of castellated strength found in England. The castle was originally founded by Geoffrey de Clinton, chamberlain and treasurer to king Henry I. But most of the buildings which remain were built by John of Gaunt, who acquired it by marriage. Through his son Henry IV. it returned into the hands of the crown, until queen Elizabeth conferred it on Robert Dudley, earl of Leicester. This nobleman spent immense sums in adorning and enlarging it; and, when all was finished, he entertained the queen here for seventeen days. According to a survey, taken some time after, the area within the walls of the castle contained seven acres, and the circuit of the walls, manors, parks, and chase, was nineteen or twenty miles. During the civil wars the buildings were extensively demolished, and the materials sold. The earl of Clarendon is the present proprietor. Population 2279. Market on Wednesday. Five miles north of Warwick, and 101 north-west of London.

KENNEBECK, a river of Maine (next to Penobscot, the largest in the district), North America, has two principal branches, the eastern and western. The former rises from Moosehead Lake; and the latter, called Dead River, interlocks with the sources of the Chaudiere, with which it is connected by a portage of only five miles. The two branches unite about twenty miles below Moosehead Lake; and the river afterwards pursues a southerly course, and flows into the Atlantic, between Philipsburg and Georgetown, a league from Seguin Island. It is joined by the Androscoggins, eighteen miles from the sea. The tide flows up as far as Augusta, and the river is navigable for ships to Bath, twelve miles; for vessels of 150 tons to Hallowell, forty miles; for sloops to Augusta, two miles further; and for boats to Waterville, eighteen miles above Augusta.

The most considerable falls on the Kennebeck are at Teconic, between Waterville and Winslow; Skouhegan Falls, between Bloomfield and Canaan; Norridgewock Falls, between Anson and Madison; and Karatunk Falls, between Einden and Sola. The country watered by it is one of the best grazing districts in New England; and the towns of Bath, Gardiner, Hallowell, Augusta, Waterville, Bloomfield, and Norridgewock are on its banks.

KENNEDY (John), M. D., a learned Scots physician of the eighteenth century, who resided several years at Smyrna. He made a valuable collection of coins and pictures: and published a Dissertation on the Coins of Carausius, which produced a controversy between him and Dr. Stukely. He died in 1760.

KENNEL, n.s. & v.n. Fr. *chenil*; Dut. *kennel*; Lat. *canalis*. A cot for dogs; a number of dogs kept together; the hole of a fox or other beast; the water-course of a street; to lie; to dwell: a term used in contempt when applied to man.

From forth the *kennel* of thy womb hath crept
A hell-hound, that doth hunt us all to death.

Shakspeare.

A little herd of England's timorous deer,
Mazed with a yelping *kennel* of French curs. *Id.*
Bad humours gather to a bale; or, as divers *kennels*
flow to one sink, so in short time their numbers
increase. *Hayward.*

The seditious remain within their station, which,
by reason of the nastiness of the beastly multitude,
might be more fitly termed a *kennel* than a camp.

Id.

Yet, when they list, would creep,
If ought disturbed their noise, into her womb,
And *kennel* there: yet there still barked and howled
Within, unseen. *Milton's Paradise Lost.*

A dog sure, if he could speak, had wit enough to
describe his *kennel*. *Sidney.*

The dog *kennelled* in a hollow tree, and the cock
rooted upon the boughs. *L'Estrange.*

He always came in so dirty, as if he had been
dragged through the *kennel* at a boarding-school.
Arbuthnot.

Brutes capable would tell you 'tis a lie
And judge you from the *kennel* and the styre.
Couper. Progress of Error.

A KENNEL for hounds should be situated on an eminence; its front ought to be to the east, and the courts round it ought to be wide and airy, to admit the sun-beams at any time of the day. Two kennels are necessary to the well-being of hounds: when there is but one it is seldom sweet. When the feeder first comes to the kennel in a morning, he should let out the hounds into the outer court; and in bad weather should open the door of the hunting kennel (that in which the hounds designed to hunt next day are kept), lest want of rest should incline them to go into it. The lodging room should then be cleaned out, the doors and windows of it opened, the litter shaken up, and the kennel made sweet and clean before the hounds return to it again. The floor of each lodging room should be bricked, and sloped on both sides to run to the centre, with a gutter left to carry off the water, that when they are washed they may soon be dry. If water should remain, through any fault in the floor, it must be carefully mopped up; for damps are always very prejudicial. The kennel ought to have three doors; two in the front and one in the back; the last to have a lattice-window in it, with a wooden shutter, which is constantly to be kept closed when the hounds are in, except in summer, when it should be left open all the day. At the back of the kennel should be a house thatched and furzed up on the sides, large enough to contain at least a load of straw. Here should be a pit ready to receive the dung, and a gallows for the flesh. The gallows should have a thatched roof, and a circular board at the posts, to prevent vermin from climbing up. A piece of ground adjoining to the kennel should be enclosed for such dog horses as may be brought alive. In some kennels a stove is used; but, where the feeder is a good one, a mop properly used will render the stove unnecessary. If ticks at any time be troublesome in your kennel, let the walls of it be well washed; if that should not destroy them, the walls must then be white-washed. There should also be a stream of water in the neighbourhood, or even running through it if possible; with moveable stages on wheels for

the hounds to lie on. The soil ought at all events to be dry. The most magnificent kennel in England is the duke of Richmond's at Goodwood, which cost £19,000, and is sufficiently extensive for two packs of hounds. The building comprises five kennels; two thirty-six by fifteen, three thirty by fifteen, and two feeding rooms twenty by fifteen feet, with stoves for warming the air when too cold. The huntsman and whipper-in have each a parlour, kitchen, and sleeping room.

KENNEDY (Dr. White), bishop of Peterborough, a learned English writer, was born at Dover, August 10th, 1660; and educated at St. Edmund's Hall, Oxford; where he soon distinguished himself by his translations of several books into English, and other publications. In 1695 he published his parochial Antiquities. In 1706 he published his Case of Impropriations, and two other tracts on the same subject. In 1709 he published the third volume of The Complete History of England; the two former being compiled by Mr. Hughes. In 1709 he published A Vindication of the Church and Clergy of England from some late Reproaches rudely and unjustly cast upon them; and A True Answer to Dr. Sacheverel's Sermon. Dr. Kennedy was exposed to great odium as a low-churchman, on account of his conduct and writings. In 1713 he presented the Society for Propagating the Gospel with a great number of books, suitable to their design; published his Bibliotheca Americanae Primordia, and founded an antiquarian and historical library at Peterborough. In 1715 he published a sermon entitled, The Witchcraft of the present Rebellion, and afterwards several other pieces. In 1717 he was engaged in a dispute with Dr. William Nicholson, bishop of Carlisle, relative to some alterations in the bishop of Bangor's celebrated sermon; and disliked the proceedings of the convocation against that bishop. Upon the death of Dr. Cumberland, bishop of Peterborough, he was promoted to that see in 1718; which he held till his death in 1728. He was an excellent philologist, and well versed in the history and antiquities of England.

KENNEDY (Dr. Basil), a learned English writer, and brother to the bishop, was born at Postling in Kent, in 1674; and educated in Corpus Christi College, Oxford, where he became fellow. In 1706 he went over as chaplain to the English factory at Leghorn; where he met with great opposition from the papists, and was in danger from the Inquisition. He died in 1714. He published Lives of the Greek Poets; the Roman Antiquities; a volume of Sermons preached at Leghorn; A Translation into English of Puffendorf's Treatise of the Law of Nature and Nations, &c.

KENNET, in geography, a river which rises among the chalky hills in Wilts, and flows to Newbury in Berks, where it becomes navigable, and below which it is augmented by the Lambourn. It then keeps along the south edge of the county, till, turning up to Reading, it mingles with the Thames. Pope has celebrated this river, as

'The Kennet swift, for silver eels renowned.'

KENNICOTT (Dr. Benjamin), well known in the learned world for his elaborate edition of the Hebrew Bible, and other valuable publications, was born in 1718, at Totness in Devonshire, where his father was parish clerk. Some opportunities of early improvement must have occurred, superior to those which his father could afford to give him; for, in 1743, he wrote A Poem on the Recovery of the honorable Mrs. Elizabeth Courtenay from a dangerous illness; which was soon followed by such contributions as procured for him the advantages of an academic education. In 1744 he entered at Wadham College, and soon distinguished himself in that particular branch of study in which he afterwards became so eminent. His two dissertations, On the Tree of Life, and The Oblations of Cain and Abel, came to a second edition so early as 1747, and procured him the singular honor of a bachelor's degree conferred on him gratis by the university, a year before the statutable time. The dissertations were gratefully dedicated to those benefactors whose liberality had opened his way to the university. He was soon after admitted a fellow of Exeter College, and distinguished himself by the publication of several sermons. In 1753 he laid the foundation of his great work on the Hebrew Bible, by publishing his first dissertation, On the State of the Printed Hebrew Text, in which he proposed to overthrow the then prevailing notion of its absolute integrity. The first blow, indeed, had been struck long before, by Capellus, in his *Critica Sacra*, published after his death by his son in 1650—a blow which Buxtorf, with all his abilities and dialectical skill, was unable to ward off. But Capellus having no opportunity of consulting MSS., though his arguments were supported by the authority of the Samaritan Pentateuch, of parallel passages, and of the ancient versions, could never absolutely prove his point. Indeed the general opinion was, that the Hebrew MSS. contained no, or at most very few and trifling, variations from the printed text: and with respect to the Samaritan Pentateuch, very different opinions were entertained. Those who held the Hebrew verity, condemned the Samaritan as corrupt in every place where it deviated from the Hebrew; and those who believed the Hebrew to be incorrect, did not think the Samaritan of sufficient authority to correct it. Besides the Samaritan itself appeared to a very great advantage; for no Samaritan MSS. were then known, and the Pentateuch was condemned for those errors which ought rather to have been ascribed to the incorrectness of the editions. In this dissertation, therefore, Dr. Kennicott proved, that there were many Hebrew MSS. extant, which, though they had hitherto been generally supposed to agree with each other, and with the Hebrew text, yet contained many and important various readings; and that from those various readings considerable authority was derived in support of the ancient versions. He announced the existence of six Samaritan MSS. in Oxford only, by which many errors in the printed Samaritan might be detected; and he attempted to prove, that even from the Samaritan, as it was already printed, many passages in the Hebrew might un-

doubtedly be corrected. This work was examined with great severity both in Britain and abroad. In some foreign universities, the belief of the Hebrew verity, on its being attacked by Capellus, had been insisted on as an article of faith. And at home this doctrine of the corrupt state of the Hebrew text was opposed by Comings and Bate, two Hutchinsonians, with as much violence as if the whole truth of revelation had been at stake. The next three or four years of Dr. Kennicott's life were chiefly spent in searching out and examining Hebrew MSS. About this time Dr. Kennicott became one of the king's preachers at Whitehall; and in 1759 vicar of Culham in Oxfordshire. In January, 1760, he published his second dissertation on the state of the Hebrew text; in which, after vindicating the authority and antiquity of the Samaritan Pentateuch, he disarmed the advocates for the Hebrew verity of their most specious arguments. He appealed also to the writings of the Jews themselves on the subject of the Hebrew text, and gave a compendious history of it, from the close of the Hebrew canon down to the invention of printing; together with a description of 103 Hebrew MSS. also which he had discovered in England, and an account of many others preserved in various parts of Europe. A collation of the Hebrew MSS. was now loudly called for, by the most learned and enlightened of the friends of biblical criticism; and in this same year Dr. Kennicott published his proposals, for collating all the Hebrew MSS. prior to the invention of printing, that could be found in Great Britain and Ireland, and for procuring at the same time as many collations of foreign MSS. of note, as the time and money he should receive would permit. His first subscribers were archbishop Secker, and the delegates of the Oxford press, who gave him an annual subscription of £40. In the first year the money received was about 500 guineas, in the next it arose to 900, at which sum it continued stationary till the tenth year, when it amounted to 1000. During the progress of the work, the industry of our author was rewarded by a canonry of Christ Church. He was also presented to the valuable living of Mynhenyote, in Cornwall, by the nomination of the chapter of Exeter. In 1776 the first volume was published, and in 1780 the whole was completed. If now we consider that above 600 MSS. were collated, that the whole work occupied twenty years of Dr. Kennicott's life, it must be owned that sacred criticism is indeed greatly indebted to him. Within two years of his death he resigned his living in Cornwall, on account of his not having a prospect of ever again being able to visit his parish. He died at Oxford, after a lingering illness, September 18th, 1783 and left a widow, who was sister to the late Edward Chamberlayne, esq., of the treasury. At the time of his death he was employed in printing Remarks on Select Passages in the Old Testament; which were afterwards published, the volume having been completed from his MSS.

KENSINGTON, a populous village of Middlesex, on the west road from London, nearly two miles from Hyde Park Corner. The palace,

which was the seat of Lord Chancellor Finch, afterwards earl of Nottingham, was purchased by king William III., who greatly improved it, and caused a royal road to be made to it, through St. James's and Hyde Parks. Queen Ann improved what William had begun; and was so pleased with the place, that she frequently supped during the summer in the greenhouse, which is very beautiful; but queen Caroline completed the design by extending the gardens from the great road in Kensington to Acton; by bringing the Serpentine River into them; and by taking in some acres from Hyde Park, on which she caused a mount to be erected. This mount is planted round with evergreens, and commands a fine view over the gardens, and the country south and west. They were originally designed by Kent, and were very much improved by Brown. The palace indeed has not much grandeur, but the royal apartments are noble, and some of the pictures good. At this palace king William, prince George of Denmark, queen Anne, and king George II. died. The old church was pulled down in 1696, and a much better one built in its room. Part of this village, from the palace gate to the Bell, is in the parish of St. Margaret's, Westminster.

KENT, a county of England, which Camden, Wallis, Harris, Hasted, and others, conjecture was originally united to the continent of Europe, by a narrow isthmus extending between Dover and Calais. The chalky cliffs of Dover, and of Calais and Boulogne, have indeed an almost exact resemblance; their faces are rugged and precipitous, appearing as if they had been rent asunder by violence; and their length on both coasts is similar, being about six miles. It is probable that Kent was possessed by the Belgæ, and afterwards lost their proper name in the word Cantii, from the name of the county. Camden observes that time has not yet stripped this county of its ancient name; but as Caesar, Strabo, Diodorus, Siculus, Ptolemy, and others call it Cantium; so the Saxons, as Nennius tells us, named it Cant-guarantol; or, in other words, the country of the people inhabiting Cantium. Caint is a British word, and is still the name of this county in Welsh. It is descriptive of a country abounding with clear, fair, or open downs; and this is the general characteristic of Kent. In the Domesday Book it is written Chenth.

This was the first county invaded by the Romans, who, after they had with much difficulty subjugated the island, named this district a portion of Britannia Prima. It formed also the first kingdom of the Saxon Heptarchy; but its kings, in process of time, being reduced or conquered by Egbert, it became part of the West Saxon kingdom, and so continued till the Norman Conquest. The inhabitants are said to have been the first in England that were converts to Christianity: and by their courage and resolution they retained some privileges which the inhabitants of every other county lost by a capitulation with William the Conqueror; particularly a tenure called gavel-kind, by virtue of which every man possessed of lands in this

county is in a manner a freeholder, not being bound by copyhold, customary tenure, or tenant right, as they are in most other parts of England. The male heirs, and in default of such the female, share all lands alike. The lands of a brother, if he have no legal issue, are shared by all the surviving brethren. An heir of fifteen years of age may sell or alienate. And, lastly, though the ancestor be convicted of felony or murder, the heirs may enjoy his inheritance. But this privilege extends not to treason, piracy, outlawry, or abjuring the realm. Such are privileges still allowed (though not quite peculiar) to the county of Kent.

This county forms the south-east angle or corner of the kingdom. Some have supposed its name to have been hence derived. It is bounded on the north by the river Thames, the county of Essex, and the German Ocean; on the south by Sussex; on the east by the British Channel; and on the west by Surrey. Its figure is quadrilateral. It is about sixty-three miles in length from Deptford to the point of the North Foreland. Its breadth from east to west is forty miles; and its circumference about 174 miles. It is divided into two grand districts, West and East Kent; sixty-three hundreds, five lathes, fifteen liberties, two cities, thirty-four market-towns, and 414 parishes. It is in the home circuit, the province of Canterbury, and the dioceses of Canterbury and Rochester.

Kent, in consequence of its proximity to the German Ocean and British Channel, is very subject to cold sea winds. The prevailing breezes are from north-east and south-west. The sub-soil of the whole Isle of Thanet is a dry, hard, rock chalk. The tops of the poor chalky ridges are about sixty feet above the level of the sea, and are covered with a dry loose chalky mould from six to eight inches deep; it has a mixture of small flints, and is, without manure, a very poor soil. The vales between the ridges, and the flat lands on the hills, have a depth of dry loamy soil, from one to three feet, with less chalk and of much better quality. The west end of the island, even on the hills, has a good mould, from one to two feet deep, a little inclining to stiffness; but the deepest and best soil is that which lies on the southernmost ridge, running westward from Ramsgate to Monkton; it is there a deep, rich, sandy loam. The soil of the marshes is a stiff clay, mixed with sea-sand, and small marine shells. In east Kent, the open part of the district between Canterbury, Dover, and Deal is of various soils, the principal of which are chalk, loam, strong cledge, hazel-mould, and stiff clay. Besides these, there are some small tracts of flints, gravel, and sand. Almost the whole of the Isle of Sheppey is a deep, strong, stiff clay. The varieties of soil in west Kent are chalk, loam, clay, gravel, sand, hassock, pinnoch, coomb, and hazel-mould. The Weald of Kent has the reputation of being an entire mass of clay; but on examination it is found to contain the following varieties of soil:—clay, hazel-mould, rag-stone, sand, and gravel. Almost the whole surface of the spacious level of fine marsh-land called Romney Marsh, is the sediment of the sea. It consists chiefly of a

soft loam and clay, with a greater or less mixture of sea-sand; there are, however, near the shore, some small tracts of blowing sand, and some sea-beach, which are of very little value. The principal rivers are the Thames, the Medway, the Greater and Less Stone, the Darent or Dart, the Cray, and the Ravensbone. The only navigable canals within the county are the Rochester Canal from Chatham to Gravesend, and the Croydon Canal from Croydon in Surrey to London. Kent abounds with agricultural produce of various kinds; with plantations of hops, and orchards of cherries and other fruit-trees. It also produces great quantities of corn, wood, and madder. The Weald of Kent is remarkable for large bullocks; and in this district there are woods of oak, beech, and chestnut. There are several mineral springs in various parts, particularly in the neighbourhood of Tunbridge Wells. The parish of Penshurst, as well as the neighbouring ones, abounds in veins of iron ore, and most of the springs in them are more or less chalybeate.

Kent returns fifteen members to Parliament: viz. four for the county, two for the city of Canterbury, two for the city of Rochester, two for Maidstone, two for Dover, two for Sandwich, one for Hythe, and Queenborough and New Romney formerly sent members. The family of Knatchbull has represented this county at various periods since the reign of Charles I. The duke of Dorset is said to be proprietor or patron of the county, the admiralty of the city of Rochester, and the ordnance and admiralty of Queenborough.

The eminent natives of Kent are very numerous: the following are the principal:—Lords Jeffery and Nicholas Amherst.—Sir Nicholas Bacon.—Sir Robert Buller.—R. Boyle.—Admiral Byng.—Mrs. Carter.—Wm. Caxton.—Dr. Thomas Comber.—Sir Ed. Dering.—Leonard and Thomas Digges.—Brien Dupper.—Queen Elizabeth.—Sir George Ent.—J. Evelyn.—J. Evelyn, his son.—Sir R. Filmer.—William of Gillingham.—Robert Glover.—J. Goddard.—Peter Gunning.—Robert Jenkins—Stephen Hales. Dr. Harris.—J. Harvey.—Dr. Wm. Harvey.—Dr. J. Hawkesworth.—King Henry VIII.—Bishop B. Hoadly.—Bishop G. Horne.—Drs. W. and Basil Kennet.—Kilburn, the antiquary.—Dr. N. Lardner.—J. Lilly.—Mrs. Macaulay.—Queen Mary.—Mrs. F. Montague.—Dr. John Monro.—The late Right Hon. William Pitt.—Richard, Earl of Cork.—Sir G. Rooke.—Reginald Scott.—Sir Charles Sedley.—Christopher Smart.—Wm. Somner.—Algernon Sydney.—Sir Philip Sydney.—Lewis Theobald.—F. Thynne.—Sir Thomas Twysden.—Sir R. Twysden.—Sir Robert Twysden.—Sir F. Walsingham.—Dr. Wilson.—Major-general James Wolfe.—Sir Henry Wotton.—Rev. Dean Wotton.—Sir T. Wyat.—Philip Yorke, Earl of Hardwicke. Canterbury and Rochester are both bishops' sees. Maidstone is the county town, and gives the title of Viscount to the Finch family.

Grazing and agriculture almost entirely engross the concerns of this county; hence there are not many private manufactures of conse-

quence. The cloth trade, first introduced at Cranbrook, has long forsaken this county, but a few descendants of the French Protestant refugees carry on the manufacture of brocades, and there are some silk mills at Sevenoaks. Some of the finest writing paper in the world is made in the vicinity of Maidstone. At Crayford are calico printing and bleaching works: at Dartford mills for manufacturing gunpowder. In time of war government gives employment to vast numbers of workmen in this county. The greater part of the entire implements of our warfare are prepared here. At Woolwich the artillery establishment is thought the most extensive and best regulated collection of workshops and storehouses in the world; and the whole establishment under the Board of Ordnance, including the Academy for the instruction of the cadets, the Artillery Barracks, and the Arsenal, is highly creditable to the country. Kent also contains the four naval arsenals of Deptford, Woolwich, Chatham, and Sheerness; and the magnificent Greenwich Hospital. See GREENWICH.

KENT, a populous and fertile county of Delaware, bounded on the east by the Delaware; south by Sussex county, west by the state of Maryland, and north by Newcastle county. It is forty miles long from north to south, and twenty-six broad from east to west. Dover is the capital.

KENT, a county of Maryland, on the eastern shore, bounded on the east by Newcastle, and part of Kent county in Delaware; south by the Chester, which divides it from Queen Anne's county; west by Chesapeake Bay; and north by the Sassafras, which separates it from Cecil county. It is thirty-two miles and a half long, and thirteen broad. Chester is the capital.

KENT, a county of Rhode Island, bounded on the east by Narraganset Bay, south by Washington county, west by the State of Connecticut, and north by Providence county. It is twenty miles long, and ten broad. Warwick is the capital.

KENTUCKY, one of the United States of North America, is bounded north by the river Ohio, which separates it from Ohio, Indiana, and Illinois; east by Virginia; south by Virginia and Tennessee; and west by the river Mississippi. It extends from long. $81^{\circ} 49'$ to $89^{\circ} 20'$ W., lat. $36^{\circ} 30'$ to $39^{\circ} 10'$ N.; 300 miles long, and from forty to 180 broad; containing 42,000 square miles. The number of inhabitants in 1830 amounted to 688,844.

The counties and chief towns, at present, are thus exhibited

Counties.	Chief Towns.
Adair	Columbia
Barren	Glasgow
Bath	Owensville
Boone	Burlington
Bracken	Augusta
Breckenridge	Hardingsburg
Bourbon	Paris
Butler	Morgantown
Bullet	Shepherdsville
Clarke	Winchester

Counties.	Chief Towns.
Casey	Liberty
Campbell	Newport
Christian	Hopkinsville
Cumberland	Burkesville
Clay	Manchester
Caldwell	Princeton
Estill	Irvine
Fayette	Lexington
Franklin	Frankfort
Fleming	Flemingsburg
Floyd	Prestonville
Gallatin	Port William
Greenup	Greensburg
Green	Greensburgh
Grayson	Litchfield
Garrard	Lancaster
Henry	Newcastle
Harrison	Cynthiana
Henderson	Henderson
Harden	Elizabeth Tcw
Hopkins	Madisonville
Jessamine	Nicholasville
Jefferson	Louisville
Knox	Barboursville
Livingston	Smithland
Lewis	Clarksburg
Lawrence	Louisa
Lincoln	Stanford
Logan	Russellville
Mason	Washington
Mercer	Danville
Madison	Richmond
Muhlenbergh	Greenville
Montgomery	Mount Sterling
Nicholas	Carlisle
Nelson	Bairdstown
Ohio	Hartford
Pulaski	Sumerset
Pendleton	Falmouth
Rockcastle	Mount Vernon
Scott	Georgetown
Shelby	Shelbyville
Union	Morganfield
Wayne	Monticello
Washington	Springfield
Warren	Bowling-green
Woodford	Versailles.

Frankfort is the seat of government. Lexington and Louisville are the largest towns. The other most considerable towns are Maysville, Washington, Bairdstown, Paris, Danville, Russellville, Georgetown, and Newport.

There have been no less than fifty-five banks and branches of banks incorporated in this state. They are not all, however, in operation.

The principal rivers are the Ohio, which flows along the state 637 miles, following its windings; the Mississippi, Tennessee, Cumberland, Kentucky, Green, Licking, Big Sandy, Salt, and Rolling.

Cumberland mountains form the south-east boundary of this state. The eastern counties, bordering on Virginia, are mountainous and broken. A tract from five to twenty miles wide, along the banks of the Ohio, is hilly and broken land, interspersed with many fertile valleys. Between this strip, Green River, and the eastern

counties, lies what has been called the garden of the state. This is the most populous part, and is about 150 miles long, and from fifty to 100 wide, comprising the counties of Mason, Fleming, Montgomery, Clarke, Bourbon, Fayette, Scott, Harrison, Franklin, Woodford, Mercer, Jessamine, Madison, Garrard, Logan, Casey, Lincoln, Washington, and Green. It is watered by Kentucky, Licking, Little Sandy, and Salt rivers, and their numerous branches. The soil is excellent, and the surface is agreeably diversified, gently rising and descending. These lands produce black walnut, black cherry, honey locust, buckeye, pawpaw, sugar-maple, mulberry, elm, ash, cotton-wood, white-thorn, with an abundance of grape vines.

There is a tract of country in the south-western part of the state, east and north of Cumberland River, and watered by Green and Barren rivers, about 100 miles in extent, called the Barrens, which a few years since was a beautiful prairie, destitute of timber. It is now covered with a young growth of various kinds of trees. These, however, do not prevent the growth of grass, and an almost endless variety of plants, which are in bloom during the whole of the spring and summer; when the whole region is a wilderness of the most beautiful flowers. The soil is of an excellent quality, being a mixture of clay, loam, and sand. Through this country there runs a chain of conical hills, called knobs. It is also distinguished for some most stupendous caves. This country, sometimes called the Green River country, is now rapidly settling. The principal towns in it are Russellville, Bowling Green, and Hopkinsville.

Ancient fortifications and mounds of earth are found in almost all parts of Kentucky. The caves in the south-western part of the state are great curiosities. One, styled Mammoth cave, 130 miles from Lexington, on the road leading to Nashville, is said to be eight or ten miles in length, with a great number of avenues and windings. Earth strongly impregnated with nitre is found in most of these caves, and there are many establishments for manufacturing it. From 100 lbs. of earth 50 lbs of nitre have frequently been obtained.

A number of the rivers in this state have excavated the earth, so as to form abrupt precipices, deep glens, and frightful gulfs. The precipices formed by Kentucky River are in many places awfully sublime, presenting perpendicular banks of 300 feet of solid limestone, surmounted with a steep and difficult ascent, four times as high. The banks of Cumberland River are less precipitous, but equally depressed below the surface of the surrounding country.

Wheat, tobacco, and hemp, are the staple productions; but Indian corn is the principal grain raised for home consumption. Rye, oats, barley, buckwheat, flax, potatoes, &c., are cultivated. Apples, pears, peaches, cherries, and plums, are the most common fruits. Domestic animals are large and beautiful, and particularly the horse.

Marble of excellent quality abounds, and the whole state may be said to repose on a bed of limestone. Salt and iron are among the minerals of this state. The most extensive works for the

manufacture of salt, established west of the Alleghany Mountains, are on the waters of Kentucky. These supply not only this state, but a great part of Ohio and Tennessee.

There is a college at Lexington, and academies are established at Augusta, Cynthiana, Frankfort, Georgetown, Greensburg, Harrodsburg, Louisville, Newport, Paris, Russellsville, Versailles, Washington, &c. The legislature has made an appropriation of lands for the support of public schools, in every county, but these appropriations, in many instances, have been injudiciously managed, and have, in some cases, turned to little account. Baptists, Methodists, and Presbyterians, are the most numerous denominations of Christians in Kentucky.

The legislature is composed of a senate, consisting of thirty-eight members, chosen by districts, for four years; and a house of representatives, not exceeding 100, chosen annually. The governor and lieutenant-governor are chosen by the people for four years, but are not eligible for the succeeding seven years. The legislature meets on the first Monday in November.

KENTUCKY, from its position, has become a manufacturing state. The amount of manufactured articles, in 1814, exceeded 13,000,000 of dollars. Of this sum, the looms produced 4,657,081; salt works, 725,870; rope walks, 393,400; maple sugar, 903,932.

KENTUCKY, a river, which rises in the south-east part of the state of that name, and runs north-west into the Ohio, seventy-seven miles above the rapids at Louisville. It is navigable in the winter for small boats, about 180 miles. The current is rapid, and the banks high and rocky.

KEPLER (John), one of the greatest astronomers of his age, was born at Wiel, in the county of Wirtemberg, in 1571. His father had been an officer in the imperial service, but was so much reduced as to be obliged to keep a public house. Young Kepler, however, studied astronomy and mathematics under Maelius, and made such rapid progress, that in 1593 he was appointed professor of mathematics at Gratz. In 1595 he wrote an excellent work, which was printed at Tubingen in 1596, entitled *Prodromus dissertationum de proportione orbium celestium, deque causis colorum numeri, magnitudinis, motuumque periodicorum, genuinis et propriis*. Tycho Brahe having settled in Bohemia, under the patronage of the emperor Rodolphus, he prevailed upon Kepler to leave the university of Gratz, and remove into Bohemia with his family and library, in 1600. Upon Brahe's death, the emperor appointed him his mathematician for life, and he daily acquired additional reputation by his works. The emperor ordered him to finish the tables of Tycho Brahe, which were called the Rodolphine Tables. He died at Ratisbon, where he was soliciting payment of the arrears of his pension, in 1630. The principal works of this great astronomer are, 1. *Prodromus dissertationum*, above mentioned, which he also entitled *Mysterium Cosmographicum*, and esteemed more than any other of his works. He sometimes said, he would not give up the honor of having written what was

contained in that book for the electorate of Saxony. 2. *Harmonia mundi*, with a defence of that treatise. 3. *De cometis libri tres*. 4. *Epitome astronomiae Copernicanae*. 5. *Astronomia nova*. 6. *Chilias logarithmorum*, &c. 7. *Nova stereometria doliorum vinariorum*, &c. 8. *Dioptrice*. 9. *De vero natali anno Christi*. 10. *Ad Tellionem Paralipomena, quibus Astronomiae pars optica traditur*, &c. 11. *Somnium, Lunaris Astronomia*; in which he began to draw up that system of comparative astronomy which was afterwards pursued by Kircher, Huygens, and Gregory. His death happened while the work was printing; upon which James Bartschius his son-in-law undertook the care of it, but was also interrupted by death: and Lewis Kepler his son, who was then a physician at Konigsberg in Prussia, was with difficulty prevailed upon to attempt to finish it, lest it should prove fatal to him: he, however, completed the task.

KEPLER'S PROBLEM is the determining the true from the mean anomaly of a planet, or the determining its place, in its elliptic orbit, answering to any given time. The general state of the problem is this: To find the position of a right line, which, passing through one of the foci of an ellipse, shall cut off an area which shall be in any given proportion to the area of the ellipse; which results from this property, that such a line sweeps areas that are proportional to the times. Many solutions have been given of this problem, some direct and geometrical, others not: viz. by Kepler, who first proposed it; Bulliald, Ward, Newton, Keill, Machin, &c. See Newton's *Principia*, lib. 1, prop. 31; Keill's *Astronomy Lect. 23*; *Philosophical Transactions*, abr. vol. viii. p. 73, &c.

KEPPEL (Augustus), lord viscount Keppel, a celebrated British admiral, the second son of William earl of Albemarle. He accompanied Anson in his famous voyage round the world, and afterwards rose to the highest naval honors. In 1778 he commanded the channel fleet, and had Sir Hugh Palliser for his second. In the engagement between the British and French fleets, little was done, and the two admirals in consequence attacked each other. See ENGLAND. Admiral Keppel was acquitted, and in 1782 was created a peer, and was twice first lord of the Admiralty. He died in 1786.

KEPPEL BAY, a bay on the east coast of New Holland, found by captain Flinders to communicate with Port Curtis. It was discovered and named by captain Cook, in 1770. A ship going in will be deceived by the color of the water; for, the shores of the bay being soft and muddy, the water running out by the deep channels with the latter part of the ebb is thick; whilst the shallows over which the tide does not flow are covered with clear water. The deep water is therefore in the muddy channels.

KERAH, or HAWEEZA, or, as called by the Turks, Karasu, a river of Persia, formed by the junction of several streams, of the province of Ardelan, in Koordistan. It runs through the plain of Kermanshaw, where it receives the Kazawur and the Gamasu, by which, being greatly increased, it flows with a violent course

through Chusistan; passes on the west of the ruins of Shus to the city of Haweeza, and enters the Shut-el-Arab about twenty miles below Korna.

KER'CHIEF, n. s. Coverchief.—Chaucer.

KER'CHIEFED, adj. French *couver* to cover,

KER'CHIEFT, adj. *and chef* the head: and hence a handkerchief to wipe the face or hands; a head-dress of a woman; any loose cloth used in dress: dressed; hooded.

Hire gilded heres with a golden threde

I bounden were, untressed as she laie:

And naked from the brest unto the hede,

Men might her se; and soothly for to saie,

The remenant covered well to my paie,

Right with a lityl kerchefe of Valence;

There n'as no thicker clothe or no deuise.

Chaucer. *The Assemble of Foules.*

I see how thine eye would emulat the diamond;
thou hast the right arched bent of the bow, that becomes the ship-tire, the tire-valiant.—A plain *kerchief*, Sir John; my brows become nothing else.

Shakspeare. *Merry Wives of Windsor.*

O! what a time have you chose out, brave Caius,
To wear a *kerchief*. *Id. Julius Caesar.*

Every man had a large *kerchief* folded about the neck. *Hayward.*

The evening comes,

Kerchiefed in a comely cloud,

While racking winds are piping loud. *Milton.*

The proudest *kerchief* of the court shall rest
Well satisfied of what they love the best. *Dryden.*

While the fair populace of crowding beauties,
Plebeian as Patriarch cheered us on
With dazzling smiles, and wishes audible
And waving *kerchiefs*, and applauding hands
Even to the goal!— *Byron. Two Foscari.*

KERF, n. s. Sax. *ceopfan*; Goth. *kerfa*;
Swed. *karfva*. To cut.

The sawn-away slit between two pieces of stuff is called a *kerf*. *Monox's Mechanical Exercises.*

KERBELA, anciently Vologesia, a populous town of Irak Arabi, near the western bank of the Euphrates, with which it is connected by a magnificent canal. Its chief celebrity is derived from Hossein, the son of Ali by Fatima, the daughter of the prophet who was slain near this place; and from whom it is sometimes called Mesched Hossein. Since his time it has become the resort of numerous pilgrims of the sect of Ali, particularly from Persia. The environs contain extensive plantations of palm trees; and the walls are upwards of two miles in circumference. The town has five gates, a well supplied bazaar, and seven caravanseras, Nadir Shah embellished the tomb of Hossein with a gilded cupola, which forms a conspicuous object, fifty miles S.S.W. of Bagdad.

KERCKRING (Theodore), a famous physician of the seventeenth century, born at Amsterdam. He found out the secret of softening amber without depriving it of its transparency; and made use of it in covering the bodies of curious insects to preserve them. He was a member of the Royal Society of London, and died in 1693 in Hamburg, where he had spent the greatest part of his life, with the title of resident of the grand duke of Tuscany. His principal works are, 1. *Spicilegium Anatomicum.* 2. *Anthropogeniae Ichonographia.* There is also

attributed to him an anatomical work, printed in 1671 in folio.

KERCOLANG, or KARKALANG, an island of Asia, in the Indian Ocean, between eighty and 100 miles in circumference, and, in general, of a good height. The face of the country seems to be steep hills and extensive valleys, and every part to be covered with trees and verdure, with some pleasant cultivated grounds. The houses stand on posts, and are well built, and thatched. The fishing hooks and lines are mostly European; and the inhabitants Mahomedans. Their clothing, in general, is made of a coarse kind of calico, though some wear silk, and most of them have a kind of turban round the head. A few are seen with a Chinese pointed hat. They are mild and quiet people; and put great confidence in strangers. The Dutch had formerly a fort here; but about the year 1773 the inhabitants of Magindano exercised a jurisdiction over the island, and exacted a tribute, which was usually paid in slaves. It lies between 4° and 5° of N. lat., and about 126° 30' E. long.

KERGUELEN'S LAND, in the South Pacific Ocean, was visited by captain Cook, in 1779. From its sterility, it might properly have been called the Island of Desolation. Mr. Anderson, who accompanied captain Cook in this voyage, says, that no place hitherto discovered in either hemisphere affords so scanty a field for the naturalist as this spot. Some verdure indeed appeared when at a small distance from the shore, which might raise the expectation of meeting with a little herbage; but all this lively appearance was occasioned by one small plant resembling saxifrage, which grew upon the hills in large spreading tufts, on a kind of rotten turf, which, if dried, might serve for fuel, and was the only thing seen here that could possibly be applied to that purpose. Long. 69° 37' E., lat. 49° 3' S.

KERI (Francis Borgia), a Hungarian Jesuit, who published a History of the Emperors of the East, and a History of the Ottoman Emperors. He was also an astronomer, and made improvements on the telescope. He died in 1769.

KERI-CHETIB, in philology, the name given to various readings in the Hebrew Bible: keri signifies that which is read; and chetib that which is written. For, where any such various readings occur, the wrong reading is written in the text, and that is called the chetib; and the true reading is written in the margin, with P under it, and called the keri. It is generally said by the Jewish writers, that these corrections were introduced by Ezra; but it is most probable, that they had their original from the mistakes of the transcribers after the time of Ezra, and the observations and corrections of the Masorites. Those Keri-chetibis which are in the sacred books written by Ezra himself, or which were taken into the canon after his time, could not have been noticed by Ezra himself; and this affords a presumption that the others are of late date. These words amount to about 1000; and Dr. Kennicott, in his *Dissertatio Generalis*, remarks, that all of them with the exception of fourteen are to be found in the text of MSS.

KERKOOK, the largest town in Lower Koordistan, Asiatic Turkey, is situated on an eminence, nearly perpendicular, and retains the appearance of a Roman fortress. The population is estimated at 18,000; but Mr. Kinneir does not think it can exceed 13,000; consisting of Armenians, Nestorians, Turks, and Curds. There are twelve mosques here; but the streets are narrow and filthy, and the houses mean. The country around is hilly. Long. $43^{\circ} 42' E.$, lat. $35^{\circ} 29' N.$.

KERMES, in natural history, a roundish body of the size of a pea, of a brownish color, and containing a multitude of little distinct granules which when crushed yield a scarlet dye. Till lately it was believed to be a vegetable excretion, but it is now known to be the body of a species of *Coccus*, which see.

This insect hangs to the tree from which it is gathered by means of a cottony down, which, according to M. Chaptal, resembles the caoutchouc in many of its chemical characteristics. In Languedoc, about the middle of May, when this insect has attained to its proper size, the harvest commences, and the peasants begin to gather it. This harvest continues till about the middle of June, or later, but one heavy storm of rain puts an end to the gathering for that year. The persons employed in this business are women, who set out early in the morning, with a lantern and a glazed earthen pot, so as to pick off as many of the kermes as possible before day, which is the most favorable time for this business. A single person may gather from one to two pounds a day.

According as the winter has been more or less mild, the harvest of kermes is the more or less plentiful; and the people always presage themselves a fine season, when the spring has been free from frosts and fogs. It is observed, that the lowest and oldest shrubs are always the fullest of this insect; and the kermes produced on those trees, which are in the neighbourhood of the sea, is always larger and finer than from the inland places.

It is no uncommon thing to have two harvests of kermes in the year. Those of the latter season are smaller and less valuable than those of the first, and are found not on the branches, but on the leaves of the shrub; which is just analogous to the custom of the gall-insects of all other kinds; all which, about this age, leave the branches to feed on the leaves, where their yet tender trunks can find an easier entrance. See *Coccus*. When the kermes is dried there comes out of it an infinite number of small insects, and flies, so small that they are scarcely visible; insomuch, that the whole inward substance seems converted into them. This shell is nothing but the body of the mother, distended by the growth of the eggs. To prevent this inconvenience, they usually steep the kermes in vinegar before it be dry; and thus prevent the exclusion of the ova, and kill such animals as are already hatched. It is afterwards dried on linen cloths. This operation gives it a color like that of red wine. They draw the juice, or pulp, from the kermes, by pounding it in a mortar, and then straining it through a sieve: of this they make a

syrup, by adding a sufficient quantity of sugar. Sometimes they dry the pulp separate from the husk; which pulp, thus dried, they call paste of kermes. If the living insect be bruised, it gives out a red color.

Kermes is used in medicine also; and by its excellent effects may be produced. In kermes are united the exciting and evacuant virtues of the emetic preparations of antimony, with the tonic, aperitive, and resolving properties of the liver of sulphur. It is capable of answering two principal indications in the treatment of many acute and chronic diseases. Properly managed, it may become an emetic, a purgative, diuretic, sudorific, or an expectorant; and it is always attenuating and resolving. When seven or eight grains are taken at once, it chiefly acts upon the *prima viae*, generally as an emetic and a purgative. A dose of three or four grains is seldom emetic, and more frequently purgative. When administered in smaller doses it passes almost into the lacteal, blood, and lymphatic vessels. In these it increases all secretions and excretions, but particularly those of urine, sweat, and expectoration, according to the dose, the nature of the disease, and to the disposition of the patient. Kermes may be administered in linctuses, in oily or in cordial potions, in any vehicle; or incorporated in a bolus, with other suitable remedies. Antacid and absorbent substances ought to be joined with it, if the patient has an acrimonious disposition of the *prima viae*; for as these acids saturate the alkali, by which the kermes is rendered in antimoniated liver of sulphur, and by which alone it differs from what is commonly called golden sulphur of antimony, they accordingly render the kermes entirely similar to the golden sulphur of antimony, the properties of which are very different from those of kermes.

KERMES MINERAL, so called from its color, which resembles that of vegetable kermes, is one of the most important antimonial preparations, both with regard to its chemical phenomena and to its medicinal uses. The use of kermes mineral was not established in medicine before the beginning of this century. Some chemists, indeed, amongst others Glauber and Lemeri, had before that time mentioned in their works several preparations of antimony which approach more or less to kermes; but these preparations, being little known, were confounded with many others which are entirely neglected, although much praised by their authors. The fame of kermes was occasioned by friar Simon, apothecary to the Chartreux friars. He received this preparation from a surgeon called La Ligerie, who had procured it from a German apothecary, who had been a scholar of the famous Glauber. Friar Simon, from the commendations given to this new remedy by La Ligerie, administered it to a Chartreux friar, who was dangerously ill of a violent peripneumony, by which the friar was suddenly, and to all appearance miraculously cured. From that time the friar apothecary published the virtue of his remedy. Several other remarkable cures were performed by means of kermes. The public believed in its medicinal qualities, and called it powder of Chartreux; because it

was prepared only in the apothecary's shop belonging to these monks. The reputation of kermes increased more and more, till at length the duke of Orleans, then regent of France, procured the publication of the process by La Ligerie. Chizel gives the following process for obtaining a fine kermes, light, velvety, and of a deep purple-brown: One part of pulverised sulphuret of antimony, twenty-two and a half parts of crystallised subcarbonate of soda, and 200 parts of water, are to be boiled together in an iron pot. Filter the hot liquor into warm earthen pans, and allow them to cool very slowly. At the end of twenty-four hours the kermes is deposited. Throw it on a filter, wash it with water which had been boiled and then cooled out of contact with air. Dry the kermes at a temperature of 85°, and preserve in corked phials. Whatever may be the process employed, by boiling the liquor, after cooling and filtration, on new sulphuret of antimony, or upon that which was left in the former operation, this new liquid will deposit, on cooling, a new quantity of kermes. Besides the hydrosulphuretted oxide of antimony, there is formed a sulphuretted hydrosulphuret of potash or soda. Consequently, the alkali seizes a portion of the sulphur from the antimonial sulphuret, water is decomposed, and whilst, a portion of its hydrogen unites to the alkaline sulphuret, its oxygen, and the other portion of its hydrogen, combine with the sulphuretted antimony. It seems, that the resulting kermes remains dissolved in the sulphuretted hydrosulphuret of potash or soda; but, as it is less soluble in the cold than the hot, it is partially precipitated by refrigeration. If we pour into the supernatant liquid, after the kermes is deposited and removed, any acid, as the dilute nitric, sulphuric, or muriatic, we decompose the sulphuretted hydrosulphuret of potash or soda. The alkaline base being laid hold of, the sulphuretted hydrogen and sulphur to which they were united are set at liberty; the sulphur and kermes fall together, combine with it, and form an orange-colored compound, called the golden sulphuret of antimony. It is a hydrogylretted sulphuret of antimony. Hence, when it is digested with warm muriatic acid, a large residuum of sulphur is obtained, amounting sometimes to 12 per cent. Kermes is composed, by Thenard, of 20·3 sulphuretted hydrogen, 4·15 sulphur, 72·76 oxide of antimony, 2·79 water and loss; and the golden sulphuret consists of 17·87 sulphuretted hydrogen, 68·3 oxide of antimony, and twelve sulphur.

By evaporating the supernatant kermes liquid, and cooling, crystals form, which have been lately employed by the calico printer to give a topical orange. These crystals are dissolved in water, and the solution, being thickened with paste or gum, is applied to cloth in the usual way. When the cloth is dried, it is passed through a dilute acid, when the orange precipitate is deposited and fixed on the vegetable fibres.

KERN, *n. s.* Irish *cearn*, contracted, says Mr. Thomson, from *ceatharn*; Scot. *caterane*. Irish foot-soldier; an Irish hoor.

These wizards welter in wealths waves,
Pampred in pleasures deepe;

They han fat *kernes* and leany knaves,
Their fasting flockes to keepe.

Spenser. *Shepheard's Calender.*
Out of the fry of those rake-hell horseboys, growing up in knavery and villainy, are their *kern* supplied.

Justice had with valour armed,
Compelled these skipping *kernes* to trust their heels.

Shakespeare.

If in good plight these northern *kerns* arrive,
Then does fortune promise fair.

Philip's Briton.

KERN, *n. s.* A hand-mill consisting of two pieces of stone, by which corn is ground. It is written likewise *quern*, and still used in some parts of Scotland.

KERN, *v. n.* Teut. *kernen*. To harden, as ripened corn; to take the form of grains.

When the price of corn falleth, men break no more ground than will supply their own turn, where-through it falleth out that an ill *kerned* or saved harvest soon emptieth their old store.

Carew.

The principal knack is in making the juice, when sufficiently boiled, to *kerne* or granulate.

Grew.

KER'NEL, *n. s. & v. n.* Saxon *cýnel*, a gland; Fr. *cerneau*:

KER'NELWORT. *Belgic karne.* The edible substance contained in a shell; any thing included in a husk; the seed of fruits; the central part of any thing which is covered with concretions; glandular tumors. Kernel, to ripen to kernels. Kernels, full of kernels. Keruelwort, an herb.

The sunne ysurmounteth the mone,
That troublen is, and chaungeth sone,—
And the nutte *kerneill* dothe the shell,—
(I skorne nat that I you it tell.—)

Chaucer. *Romauant of the Rose.*

I think he will carry this island home in his pocket, and give it his son for an apple. — And, sowing the *kernels* of it in the sea, bring forth more islands.

Shakespeare. *Tempest.*

As brown in hue

As hazel nuts, and sweeter than the *kernels*.

Shakespeare.

There can be no *kernel* in this light nut; the soul of this man is his clothes.

Id.

The apple inclosed in wax was as fresh as at the first putting in, and the *kernels* continued white.

Bacon's Natural History.

The *kernel* of a grape, the fig's small grain, Can clothe a mountain, and o'ershade a plain.

Dunham.

The *kernel* of the nut serves them for bread and meat, and the shells for cups.

More.

In Staffordshire, garden-rouncivals sown in the fields *kernel* well, and yield a good increase.

Mortimer's Husbandry.

Oats are ripe when the straw turns yellow and the *kernel* hard.

Id.

A solid body in the bladder, makes the *kernel* of a stone.

Arbuthnot

KERRERA, an island of Scotland, in Argyleshire, in the Sound of Mull, near the main land of Mid Lorn, and included in the parish of Kilbride. In this island king Alexander II., being upon an expedition against the Danes, died of a fever on the 8th of July 1249. His ships were anchored in the Greater Horse-Shoe Bay, whilst he, for the benefit of his health, was on shore, and his pavilion was erected on Dalree (i. e. the king's plain), by that natural harbour, whence his body was carried to the abbey of Melrose.

KERRY, a county or shire in the province of Munster, and kingdom of Ireland. It is bounded on the west by the Atlantic Ocean; on the east by parts of Cork and Limerick; on the north by the Shannon; and on the south by part of Cork and by the ocean. Its greatest length is about sixty-seven miles, and its maximum breadth about sixty-two: containing, according to Dr. Beaufort, 1,040,487 statute acres, or 1639 square miles. If Dr. Beaufort's returns of population and of houses be correct, both appear to have been *doubled* in thirty-five years.

Kerry is divided into eight baronies, Clane-maurice, Corkaguiny, Dunkerron, Glanerought, Iraghticonnor, Iveragh, Magunihy, and Truagh-nacmy, which are subdivided into eighty-three parishes, all of them being in the ancient dioceses of Ardfert, and Aghadoe, which have been annexed to the see of Limerick since the year 1663. Kerry comprehends a great part of the ancient Desmonia, and gives title of earl to the noble family of Petty. Many schools for the education of the peasantry are established here, and upwards of 15,000 children are daily receiving the benefits of a very sound and substantial system of instruction. This is effected almost entirely by pay-schools, or, at all events, by domestic support, the bounty of strangers being rejected except in a very few cases.

The northern part of this county, lying towards the Shannon, is comparatively low, having a fall or inclination towards the river Gale or Cashen: it is now in a very unprofitable condition, although well adapted for conversion into a good tillage country. The central district is an upland country, rising gradually into the boundary between Limerick and Cork, the upper stratum of which is an indurated clay-shiver, covering thin beds of culm, which, in the eastern extremity of the range, are found alternating with a good coal blonde, similar to that of Kilkenny. This field is flanked by extensive beds of secondary limestone. The vales of the central district consist of an extensive and improvable bog, having a drainage southward towards Dingle Bay, and eastward by the Blackwater, towards Cork. The southern district is formed of an extensive and lofty mountain chain, commencing on the eastern side of Dingle Bay, and continuing, with little interruption, along the south side of the lakes of Killarney, and of the river Blackwater, as far as the county of Waterford. The vales between these hills are generally extensive bog fields, capable of reclamation, and peculiarly well situated for exportation of this produce, though they now lie totally waste. The prevailing and component rock of this mountain range is clay slate, the strata of which are so highly inclined, that they are easily decomposable by the weather; and this decomposition forms an adhesive loam well suited to the reception of grain crops. This clay slate has also been quarried for roofing in some places: but the convenience of export has hitherto confined the workings to Caher, Begnish, and Valentia.

The culm and stone coal of Kerry are yet but imperfectly explored, and the waste lands and bog, exceeding 200,000 acres, remain in the same unoccupied, uninproved, and deplorable con-

dition in which they were found by the bog commissioners in the year 1814. The barony of Glanerough is particularly oppressed by poverty, scarcely one plough existing within that whole district, for which spade labor is necessarily substituted. Besides the coal and culm already mentioned, copper is found in considerable quantities in the Kerry mountains, occurring chiefly in the limestone district. It occurs on both sides of the river Kenmare, but on the south side is found in slate. On Ross Island, on the beautiful lake of Killarney, one of the richest mines of ruby copper ore in Ireland is now at full work: but this is also in the limestone region; and another vein, not now worked, occurs in the same matrix, near to the picturesque ruin of Mueress Abbey, on the same lake.

The roads, or rather the want of them, have hitherto militated against the improvement of the Kerry peasants; but the patronage and assistance of government, as well as the exertions of the fishery board, have succeeded in opening the wildest districts of a very retired country, by lines of road skilfully laid down and ably executed. A mail coach line is now completed from Limerick city by Listowel and Tralee to Dingle. Another line is finished from Limerick to Valentia, by Rathkeale, Abbyfcale, Castle-island, and Caher: and a most necessary, as well as most romantic road (particularly distinguished for its workmanlike execution, and its systematic and durable conformation), connects the towns of Killarney and Kenmare, skirting the beautiful lakes of Killarney, which were hitherto concealed from all but navigators of their surface, and affording a sublime view of their picturesque scenery. How great are the benefits that in all likelihood will follow, from these improvements, may easily be imagined from the incalculable advantage already derived to the peasantry, whose only staple is live cattle or butter, the latter of which was formerly carried in panniers, on horse-back, for distances exceeding fifty miles.

The rivers of this country do not afford any advantage as to inland navigation. The Kenmare is navigable for some miles, but this may be called an arm of the sea. The other rivers are the Blackwater, the Feale, Gale, Caslin, Maing, Lea, Flesk, Laune, Carrin, Fartin, Inny, and Roughty. The Flesk falls into the Lower Lake of Killarney, the waters of which are discharged into the sea by the Laune. The principal towns are Tralee the assizes town, Dingle, Killarney, Nedeen or Kenmare, Castleisland, Lixnaw, Listowel, and Milltown.

The line of sea coast is very extensive and much indented: the chief islets and bays are those of Tralee, Brandon, Dingle, Valentia, Ballinskelligs, and Kenmare. The last, twenty miles in length, is spacious and safe, and Valentia (a name given by the Spaniards) is one of the safest in Ireland. Here it is now proposed, by the American and Colonial Steam Navigation Company, to establish a packet station, and vessels to ply regularly between this place and Nova Scotia. The coast, which is rather bold, is rendered dangerous by the great number of islands and rocks, above seventy, on two of the most conspicuous of which, the Skelligs, light-houses

are now erected. In the limestone caves on the sea shore, near to Dingle, Kerry Head, and many other places, very beautiful crystals, clear and hard, are often found. These, called Kerry stones and Irish diamonds, are deservedly esteemed by lapidaries. A few amethysts have also been detected, and some valuable pearls have been raised from the lakes and rivers of the county.

Cider was formerly made here in large quantities from the Cackigay apple, and obtained both a good price and estimation: but this traffic is now much neglected; and another species of apple, equally valued, called the Kerry pipkin, is now most difficult to be procured.

KERTSCH, KERTZ, or KJERCH, a fortress and sea-port of European Russia, in the government of Taurida. It stands in a peninsula of this name, and has a good harbour, but is thinly peopled, containing, exclusive of the garrison, not more than 400 inhabitants, mostly Greeks. The fortress is of the greatest importance, as one of those commanding the passage which forms the communication between the Black Sea and the sea of Azoph. In the neighbourhood stood the ancient Panticapaeum, remarkable for the death of Mithridates. Kertsch was taken by the Russians in 1771. Its Russian name is Vospor. Sixty miles N.N.E. of Caffa, and 100 E. S. E. of Perekop.

KER'SEY, n. s. Fr. *carisée*; Belg. *karsaye*, A coarse stuff.

Taffata phrases, silken terms precise,
I do forswear them; and I here protest,
Henceforth my wooing mind shall be exprest
In russet yeas, and honest *kersey* noes.

Shakspeare.

His lackey, with a linen stock on one leg, and a *kersey* boot-hose on the other. *Id.*

The same wool one man felts into a hat, another weaves it into cloth, and another into *kersey* or serge. *Hale.*

Thy *kersey* doublet spreading wide,
Drew Cicely's eye aside. *Gay.*

KEST. The preter tense of cast. It is still used in Scotland.

Only that noise heaven's rolling circles *kest*. *Fairfax.*

KESTREL. n. s. A little kind of bastard hawk.

His *kestrel* kind,
A pleasing vein of glory, vain did find. *Faerie Queen.*

Kites and *kestrels* have a resemblance with hawks. *Bacon.*

KESTZHELY, a town of Hungary, in the palatinate of Sala, on the Platten see, with a castle. It is noted for an agricultural seminary, in which are taught mathematics, natural history, botany, economics, and mechanics. The inhabitants are supported partly by woollen manufactures, partly by the culture of vineyards. Here, in an extensive garden, provided with ponds and ditches, are reared a number of land tortoises. Twenty-three miles south of Vasarhely. Inhabitants 9000.

KESSEL (John Van), an eminent painter, born at Antwerp in 1626. He not only excelled in fruits and flowers, but was eminent for painting portraits. He resembled Velvet Breughel,

and nearly equalled him in birds, plants, and flowers. The prodigious prices for which he sold his works occasioned the rich alone to be the purchasers; and the king of Spain admired his performances so much, that he purchased as many of them as he could procure, and at last prevailed on him to visit his court, where he was appointed painter to the queen, and was retained in her service as long as she lived. He painted portraits admirably, with a light free touch, and a tone of color that very much resembled Van-dyck; nor are his works in that style considered in Spain as inferior to that great master. He died in 1708, aged eighty-two.

KESWICK, a town of Cumberland, with a market on Saturday; seated in a vale surrounded by hills, near the rapid river Greeta. It was formerly famous for its copper mines, which rendered it a considerable place; but it now consists only of one long street. Its chief trade is from the influx of travellers on visits to the lakes. The church stands nearly half a mile from the town, and is a beautiful object in the vale. A new market house was erected here a few years ago, which, viewed from any point, adds to the beauty of the scene. Here are a free-school and a Sunday school, and two museums, containing specimens of most of the minerals and other curiosities of Cumberland. It is twenty-five miles north-west by north of Kendal, and 291 N.N.W. of London.

KESWICK, VALE OF, a delightful spot in the south part of Cumberland, much visited by the admirers of nature. Here is the lake of Keswick, or, more properly, the Derwent-water. To the north of this romantic piece of water soars the lofty Skiddaw, one of the most distinguished mountains in England, the haunt of birds of prey. To the south is the dreary region of Borrowdale. The water of the Derwent is subject to violent agitations, and often without any apparent cause. It has one peculiar characteristic: namely, that it retains its form, viewed from any point, and never assumes the appearance of a rive. See DERWENT and CUMBERLAND.

KESZDI VASARHELY, a handsome town of Transylvania, in the district of Haromstek, separated from that of Kanta by a rivulet, and surrounded by mountains. One of them is decidedly volcanic, and yields tufa. Population 6500: seventy-two miles E. N. E. of Hermannstadt.

KET (William), a tanner of Norfolk, who in the reign of Edward VI. instigated a revolt against the government. The populace were at first excited by the complaints against enclosures; but finding their numbers increase, and amounting to 20,000 strong, they grew insolent, and proceeded to more exorbitant pretensions. They demanded the suppression of the gentry, the placing of new counsellors about the king, and the re-establishment of the popish religion. Ket assumed the government over them, and exercised his brief authority with the utmost arrogance. Having taken possession of Moushold Hill, near Norwich, he erected his tribunal under the branches of an old spreading oak, thence denominated the Oak of Reformation, and summoning

the gentry to appear before him, he gave such decrees as might be expected from his character and situation. At length the earl of Warwick was sent against the rebels and put them to flight. Ket being taken was hanged at Norwich Castle, and nine of his followers on as many boughs of the Oak of Reformation, and the insurrection was entirely suppressed in 1549.

KETCH, *n. s.* Ital. *cuccio*. A barrel; a heavy ship, as a bomb-ketch. Jack Ketch seems to derive his name from the Saxon *ceocs*, to choke or strangle.

I wonder

That such a *ketch* can with his very bulk
Take up the rays o' the' beneficial sun,
And keep it from the earth. *Shakespeare.*

KETCHES, in naval affairs, vessels with two masts, and usually from 100 to 250 tons burden, principally used as bomb-vessels. Bomb-ketches are built remarkably strong, as being fitted with a greater number of riders than any other vessel of war; and are furnished with all the apparatus necessary for a vigorous bombardment.

KETCHUP, in cookery, a most agreeable relish for fish, beef-steaks, &c., is manufactured from mushrooms, from cockles, and from walnuts. The first is generally most esteemed, but we shall present our readers with the methods of preparing each:—

Mushroom ketchup.—Take the largest broad mushrooms, break them in an earthen pan, strew salt over, and stir them now and then for three days. Then let them stand till there is a thick skum over them; strain and boil the liquor with Jamaica and black pepper, mace, ginger, a clove or two, and some mustard seed. When cold, bottle it and tie a bladder over the cork: in three months boil it again with fresh spice, and it will then keep for twelve months. Or; take a stew pan full of large flap mushrooms, that are not worm eaten, and the skins and fringe of those you have pickled; throw a handful of salt among them, and set them by a slow fire; they will produce a great deal of liquor, which you must strain, and put to it four ounces of shalots, two cloves of garlick, a good deal of pepper, cloves, ginger, mace, and a few bay leaves.—Boil and skim very well. When cold, cork close. In two months boil it up again with a little fresh spice, and a stick of horse-radish, and it will keep the year; which mushroom ketchup, if not boiled a second time, rarely does.

Cockle ketchup.—Open the cockles; scald them in their own liquor; add a little water when the liquor settles, if you have not enough; strain through a cloth; then season with every savory spice; and, if for brown sauce, add port, anchovies, and garlic:—if for white, omit these, and put a glass of sherry, lemon-juice, and peel mace, nutmeg, and white pepper. If for brown, burn a piece of sugar for coloring.

Walnut ketchup.—Boil or simmer a gallon of the expressed juice of walnuts, when they are tender, and skim it well; then put in two pounds of anchovies, bones and liquor; ditto of shalots; one ounce of cloves, ditto of mace, ditto of pepper, and one clove of garlick. Let all simmer till the shalots sink; then put the liquor into a pan till cold; bottle and divide the spice

to each; cork closely and tie a bladder over. It will keep twenty years, and is not good the first. Be very careful to express the juice at home; for it is very rarely unadulterated if bought.

KETSKEMET, a large town of Hungary, the chief place of a district, and the residence of many families of rank. It has manufactures of soap and leather; but the chief property of the district consists in cattle and sheep. Both the Catholics and Calvinists have churches and schools here. Forty-six miles N. N. W. of Szegedin, and fifty S. S. E. of Pest.

KETT (Henry), B. D., born at Norwich in 1761, was educated at the grammar-school, and entered as a commoner of Trinity College, Oxford, where he took his degree of M. A. in 1783. In 1790 he was Bampton lecturer, and in 1795 took the degree of B. D. In 1798 he published History the Interpreter of Prophecy, which attracted notice. In 1802 appeared his Elements of General Knowledge, which, though severely criticised by some members of the university of Oxford, passed through nine editions. His other performances are of a trifling cast; a novel entitled *Emily* is the only one that bears an original character. After holding his fellowship many years, he married, and obtained the living of Charlton in Gloucestershire. He was found drowned at the seat of his friend Sir J. Gibbon, Stanwell, where he had been bathing, June 30th, 1825.

KETTERING, a town of Northamptonshire, pleasantly seated on an ascent, and surrounded by a great number of gentlemen's seats. The church has an embattled tower, with a very elegant spire sixty-three yards high. There are four fairs, and a market on Friday. Seventy-five miles N. W. from London.

KETTLE, *n. s.* *¶* Sax. *cerl*; Belgic *ketel*;

KETTEDRUM, *¶* Swed. and Teut. *kettel*. A vessel in which liquor is boiled: kettledrum, a drum of which the head is spread over a body of brass.

The fire thus formed, she sets the *kettle* on;
Like burnished gold the little seether shone. *Dryden.*

As he drains his draughts of Rhenish down,
The *kettledrum* and trumpet thus bray out
The triumph of his pledge. *Shakespeare.*

KETTLE is also a term given by the Dutch to a battery of mortars, because sunk under ground.

KETTLE-DRUMS are formed of two large basins of copper or brass, rounded at the bottom, and covered over with vellum or goat-skin, which is kept fast by a circle of iron, with several holes in it, fastened to the body of the drum, and a like number of screws to screw up and down. The two basins are kept fast together by two straps of leather, which go through two rings, and are fastened the one before and the other behind the pommel of the kettle-drum's saddle.

KETTLEWELL (John), a learned divine, born in 1653, was descended from an ancient family in the North Riding of Yorkshire, and elected fellow of Lincoln College, Oxford. In 1675 he entered into orders; but, refusing to take the oaths to king William and queen Mary, was deprived of his living. He published several works which were collected and reprinted

together in 1718, in 2 vols folio. He died of a consumption in 1695.

KEVELS, in ship-building, a frame composed of two pieces of timber, whose lower ends rest in a sort of step or foot, nailed to the ship's side, whence the upper ends branch outward into arms or horns, serving to belay the great ropes by which the bottoms of the main-sail and fore-sail are extended.

KEW, a village of Surry, on the banks of the Thames, over which is a handsome stone bridge of seven arches to Brentford, seven miles west by south of London. It was formerly a hamlet to Kingston; but in 1769 an act of parliament was passed, forming Kew and Petersham into one vicarage. Kew House, a royal palace, is celebrated for its fine gardens, and his majesty's exotic garden. This last has been brought to great perfection by the introduction of numbers of new plants from Africa, New South Wales, and various parts of the world, and is known throughout all Europe. Kew gardens are open to the public every Monday, from Midsummer to the end of autumn.

KEY, n. s. Sax. *cēg*. An instrument by which the bolt of a lock is pushed forward or backward.

And ne had the gode keping be [been kept]
Whilom of the universitee,
That keþeth the *kei* of Cristendome,
We had been tourmented all and some. *Chaucer.*

If a man were porter of hell-gate, he should have
old turning the *key*. *Shakspeare.*

The glorious standard last to heaven they spread,
With Peter's *keys* ennobled, and his crown. *Fairfax.*

Yet some there be, that by due steps aspire
To lay their just hands on that golden *key*,
That opes the palace of eternity. *Milton.*

He came, and knocking thrice without delay,
The longing lady heard, and turned the *key*. *Dryden.*

Conscience is its own counsellor, the sole master of its own secrets; and it is the privilege of our nature that every man should keep the *key* of his own breast. *South.*

The warder at the door his *key* applies,
Shoots back the bolt, and all his courage dies. *Couper.*

An instrument by which something is screwed or turned. *Swift.*

Hide the *key* of the jack. *Swift.*

An explanation of any thing difficult. *Swift.*

An emblem without a *key* to it is no more than a tale of a tub. *L'Estrange.*

These notions in the writings of the ancients darkly delivered, receive a clearer light when compared with this theory, which represents every thing plainly, and is a *key* to their thoughts. *Burnet.*

Those who are accustomed to reason have got the true *key* of books. *Locke.*

The parts of a musical instrument which are struck with the fingers. *Pamela.*

Pamela loves to handle the spinnet, and touch the *keys*. *Pamela.*

KEY, in music, a certain tone to which every composition, whether long or short, ought to be fitted: and this *key* is said to be either flat or sharp, not in respect of its own nature, but with

relation to the flat or sharp third, which is joined with it.

Te Deum amoris, sang the thrusted cocke
Tubal himself the first musician,
With *key* of armony coude not unlocke
So swete a tewne, as that the thrustel can
'The lorde of Love we praisen ; ' quod he than
' And so done al the foules gret and lite ;
Honour we may, in fals lovers despite.

Chaucer. The Court of Love.

Hippolita, I woode thee with my sword,
And won thy love doing thee injuries ;
But I will wed thee in another *key*,
With pomp, with triumph, and with revelling.

Shakespeare.

But speak you with a sad brow; or do you play
the flouting Jack? Come in what *key* shall a man
take you to go in the song? *Id.*

Not know my voice! Oh, time's extremity!
Hast thou so cracked and splitted my poor tongue
In seven short years, that here my only son
Knows not my feeble *key* of untuned cares? *Id.*

Fr. *quai*; Dut. *kaye*. A bank raised perpendicular for the ease of lading and unlading ships.

A *key* of fire ran along the shore,
And lightened all the river with a blaze. *Dryden.*

Key cold was a proverbial expression, now out of use.

Poor *key cold* figure of a holy king!
Pale ashes of the house of Lancaster. *Shakespeare.*

KEY. See **LOCK**. L. Molinus has a treatise of keys, *de Clavibus Veterum*, printed at Upsal, wherein he says, that the use of keys is yet unknown in some parts of Sweden. The invention of keys is ascribed to Theodore of Samos, according to Pliny and Polydore Virgil; but this must be a mistake, the use of keys having been known before the siege of Troy; mention even seems to be made of them in Gen. xix. 10. Molinus is of opinion, that keys at first only served for the untying certain knots, wherewith they anciently secured their doors; but the Laconic keys, he maintains, were nearly akin in use to our own; they consisted of three single teeth, and made the figure of an E; of which form there are still some to be seen in the cabinets of the curious. There was another key called *Balaurya*, made in the manner of a male screw; which had its corresponding female in a bolt affixed to the door. Key is hence become a general name for several things serving to shut up or close others. See **LOCK**.

This word is also used for ecclesiastical jurisdiction; particularly for the power of excommunicating and absolving. The Romanists say the pope has the power of the keys, and can open and shut Paradise as he pleases: grounding their opinion on that expression of our Lord to Peter, 'I will give thee the keys of the kingdom of heaven.' In St. Gregory we read, that it was the custom of the popes to send a golden key to princes, wherein they enclosed a little of the filings of St. Peter's chains, kept with great devotion at Rome; and that these keys were worn in the bosom, as being supposed to contain some wonderful virtues.

KEY is used for an index of a cipher. See **CIPHER**.

KEY in music, is the fundamental note or tone, to which the whole piece in cantata, sonata, concerto, &c., is accommodated, and with which it usually begins, but always ends.

KEY, or QUAY. See **QUAY**.

KEYS' ISLANDS, three islands in the Eastern Seas, lying N. N. E. of Timour Laut and near the coast of New Guinea. They are called Key Watelas, Little and Great Key; the last being said to be fifty miles in length, and from seven to twelve broad, but little is known of any of them.

KEYS OF AN ORGAN, HARPSICHORD, &c., those little pieces in the fore part of those instruments, by means whereof the jacks play, so as to strike the strings. In large organs there are several sets of keys, some to play the secondary organ, some for the main body, some for the trumpet, and some for the echoing trumpet, &c.; in some there are but a part that play, and the rest are only for ornament. See **ORGAN, &c.**

KEY'AGE, n. s. Money paid for lying at **KEY'HOLE, n. s.** the key or quay. Key-

KEY'STONE, n. s. hole, the perforation in the leek through which the key is put. Key-stone, the middle stone of an arch.

Make doors fast upon a woman's wit, and it will out at the easement; shut that and it will out at the **keyhole**. *Shakspeare.*

I keep her in one room; I lock it

The key, look here, is in this pocket;

The **keyhole** is that left! Most certain.

Prior.

If you will add a **keystone** and chaprels to the arch, let the breadth of the upper part of the **keystone** be the height of the arch. *Moxon.*

I looked at the **keyhole**, and saw a well-made man. *Tatler.*

Shylock and the Moor

And Pierre, cannot be swept or worn away—
The **Keystones** of the arch! *Byron. Childe Harold.*

THE KEY-STONE OF AN ARCH OR VAULT is the last stone placed at top; which, being wider and fuller at the top than bottom, wedges and binds all the rest. The key is different in the different orders; in the Tuscan and Doric it is a plain stone, only projecting; in the Ionic it is cut and waved somewhat after the manner of consoles; in the Corinthian and Composite it is a console enriched with sculpture, foliages, &c.

KEYSLER (John George), F. R. S., a learned German antiquary, born at Thourneau in 1689. After studying at the university of Halle, he was appointed preceptor to Charles Maximilian and Christian Charles, the counts of Giech; with whom he travelled through Germany, France, and the Netherlands, and gained great reputation among the learned, by illustrating several monuments of antiquity, particularly some fragments of Celtic idols discovered in the cathedral of Paris. In 1716 he was employed to superintend the education of two grandsons of baron Bernstorff, first minister of king George I., as elector of Brunswick Lunenberg. However, obtaining leave, in 1718, to visit England, he was elected F. R. S. for a learned essay *De Dea Nehelennia numine veterum Walachorum topico*. He also wrote on Stonehenge, and on the Consecrated Mistletoe of the Druids.

These detached essays, with others, he published on his return to Hanover, under the title of *Antiquitates selectæ Septentrionales et Celticae, &c.* He afterwards made the grand tour with the young barons, to which we owe the publication of his *Travels*; which were translated into English, and published in 1756, in 4 vols. 4to. Mr. Keysler on his return spent the remainder of his life under the patronage of his noble pupils, who committed their fine library and museum to his care, with a handsome income. He died in 1743.

KHALIF, KALIPH, or CALIPH. Arab. khalifah, i. e. a successor or heir: successor of Mahomet in the spiritual as well as temporal empire erected by that legislator. After the death of Mahomet, Abubeker having been elected by the Mussulmans to supply this place, he would take no other title but that of khalifah resoul allah, i. e. vicar of the prophet, or messenger of God. Omar, who succeeded Abubeker, preferred the title of emir moumenin, i. e. prince of the believers: but his successors resumed that of khalif, which thus came to signify the supreme ecclesiastical dignity among the Saracens; or sovereign among the Mahomedans, vested with absolute authority in all matters relating both to religion and policy. It is still one of the grand seignior's titles, as successor of Mahomet. One of the chief functions of the khalif, in quality of imam, or chief priest of Mussulmanism, was to begin the public prayers every Friday in the chief mosque, and to deliver the khothbak, or sermon. In after times they had assistants for this latter office; but the khalifs always performed in person. The khalif was also obliged to lead the pilgrims to Mecca in person, and to march at the head of the armies of his empire. He granted investiture to princes; and sent swords, standards, gowns, and the like, as presents to princes of the Mahomedan religion; who, though they had thrown off the yoke of the caliphate, nevertheless held of it as vassals. The khalifs usually went to the mosque mounted on mules; and the Seljukide sultans, though masters of Bagdad, held their stirrups, and led their mule by the bridle some distance on foot, till such time as the khalifs gave them the sign to mount on horseback. At one of the windows of the khalif's palace there always hung a piece of black velvet, twenty cubits long, which reached to the ground, and was called the khalif's sleeve; which the grandees of his court never failed to kiss with great respect every day. After the destruction of the caliphate, by Hulaku, the Mahomedan princes appointed a particular officer, in their respective dominions, who sustains the sacred authority of khalif. In Turkey he goes under the denomination of mufti, and in Persia under that of sadne. After the death of Mahomet (see **ARABIA** and **MAHOMET**), the succession of khalifs continued in Arabia and Bagdad till the 655th year of the Hegira, when Bagdad was taken by the Tartars. See **BAGDAD**, **Egypt**, and **SARACENS**. After this, however, there were persons who claimed the khaliphate, as pretending to be of the family of the Abbasides, and to whom the sultans of Egypt rendered great honors at Cairo, as the true successors of Mahomet; but this honor was

merely titular, and the rights allowed them only in matters relating to religion; and though they bore the sovereign title of khalifs, they were nevertheless subjects and dependents of the sultans. In the year of the Hegira 361 a kind of caliphate was erected by the Fatemites in Africa, and lasted till it was suppressed by Saladin. Historians also speak of a third caliphate in Geimen or Arabia Felix, erected by some princes of the family of the Jobites. The emperors of Morocco assume the title of grand cherifs; and pretend to be the true khalifs, or successors of Mahomet, though under another title.

KHAN, or **CHAM**, the title given to the princes of Tartary. The word in Persian signifies mighty lord; in the Sclavonic, emperor. Sperlingius, in his Dissertation on the Danish term of majesty, koning, king, thinks the Tatarian cham may be derived from it; adding, that in the north they say kan, konnen, konge, konning, &c. The term is also applied among the Persians to the great lords of the court, and the governors of provinces.

KHANDESH, a Mahratta province of Hindostan, situated between 21° and 23° of N. lat. On the north it is bounded by Malwah, on the west by Gujarat, on the south by Aurungabad, and on the east by Berar. It was long in possession of the Afghauns, when the capital was Asseer or Hasseer, but was conquered by the emperor Akbar in the sixteenth century. It is remarkably strong in fortresses. Within one day's march nearly twenty are to be seen; and it is intersected by the Narbudda and Tapti rivers. The greater portion of it belongs to the descendants of Holkar; the remainder to the peshwa and Sindia; but many of the strong places are in possession of refractory chiefs. The inhabitants are chiefly Hindoos. Cotton cloths called bastahs were formerly manufactured here. The chief towns are Boorhampore, Hindia, and Hasser.

KIERASKOF (Michael), an eminent Russian poet of the eighteenth century, who published a poem On the Use of Science; and an epic poem called the Russiada, the subject of which is the conquest of Casan by John Basiliowitz II. He was appointed vice-president of the College of Mines, curator of the university of Moscow, and a counsellor of state.

KHILKOF, PRINCE, a Russian nobleman, who was ambassador to Charles XII.; and when the war broke out between Sweden and Russia, was, contrary to the law of nations, thrown into prison by that prince. During his confinement he wrote an Abridgment of the Russian History. He died after a captivity of eighteen years. His work was published by Mr. Muller in 1770, in 8vo.

KHOEE, a large and handsome town of Persia, in the province of Aderbijan, on the lake Ureemea. It is a principal channel of the trade with Turkey: the walls are in good condition; the streets regular and well-built, and adorned with avenues of trees. Population about 25,000. In the neighbourhood a battle was fought in 1514 between the sultan Selim I. and Shah Ismael, in which 30,000 Persians engaged 300,000 Turks.

KHOJUND, a populous city of Bukharia, subject to Koukan, or the khan of the Tartar tribe of Mengh. It is said to be larger than Samarcand. The Sirr, or Sihon (anciently the Jaxartes), flows under its walls, but is no where fordable; nor are boats or any bridge employed in passing it; the inhabitants being merely conveyed over in floats of reeds.

KHORASSAN, a considerable province of Persia, having Irak and Mazanderan to the west, Seistan to the south, Bukharia and Balk to the north and east. Though nominally included in Persia, it partakes largely both of the natural and political character of the bordering regions of Tartary; and the south part belongs in fact to the Afghauns. It is in general a level country, though intersected by lofty and irregular ranges of mountains; some part of it also consists of sandy deserts. But the soil is fertile when cultivated, and yields corn, wine, rice, oil, and silk, in abundance. According to the elevation, the climate is sometimes extremely cold; and it is subject to a pestilential wind, called the bad seunum, which is observed to blow for forty days in the year.

KIYRABAD, or **KAIRABAD**, a district of the province of Oude, Hindostan, situated principally between 27° and 28° of N. lat: it is bounded on the west by the Ganges, and on the east by the Gogra; and is fertile and well watered, producing sugar, and all the grains of India. It is intersected by the Goontry River; and its chief towns are Khyrabad, Shahabad, and Mahomedy.

KIAKHTA, a town of Asiatic Russia, in the government of Irkoutsk, and district of Verschnei Oudinsk. It has of late become the emporium of the commerce between Russia and China; the latter allowing trade only at one point of each of its frontiers. Kiakhta was, in 1728, fixed upon by treaty as the medium of the communication. To the great fair, held in December, merchants flock from every part of the Russian empire, and bring cloths, beavers, furs, Russia and morocco leather, receiving in exchange tea, nankeens, silk stuffs, rhubarb, &c. Kiakhta is situated in a plain, traversed by a river of this name, and surrounded by high granitic and wooded mountains, on the most elevated of which is a fort. On another mountain are seen the boundaries of the two empires. The Russian boundary being a hillock, with a cross at the top, while the Chinese have a kind of cone or pyramid. The Chinese town close by is called Naimatschin-320 miles south of Irkoutsk.

KIANG NAN, a province of China, and one of the most fertile, commercial, and opulent, in the empire. It is bounded on the west by Honan, and Hou-quang; south by Tchekiang and Kiang-si; east by the gulf of Nanking; and north by Chan-tong. The emperors long kept their court in this province, till reasons of state obliged them to move nearer Tartary, and reside in Pekin. This province contains fourteen cities of the first class, and ninety-three of the second and third. They are all of them places of considerable trade. Large barks can go to them from all parts; the whole country being intersected by lakes, rivers, and canals, commun-

eating with the Yang-tse-kiang, which runs through the middle of the province. Silk stuffs, lacquer-ware, ink, paper, and every thing that comes from Nauking, as well as from the other cities of the province, are much more esteemed, and fetch a higher price than those brought from the neighbouring provinces. In the Chang-hai, and the villages dependent on it, there are said to be above 200,000 weavers of cotton cloths. In several places on the sea-coast are many salt-pits, the produce of which is distributed all over the empire. This province is divided into two parts, each of which has a distinct governor. The governor of the east part resides at Soutcheou, that of the west at Ngan-king. Each of them has under his jurisdiction seven cities of the first class. The official account of the population given to Sir George Staunton stated it to amount to 32,000,000.

KIANG-SI, a province of China, bounded on the north by that of Kiang-nan, west by Hou-quang, south by Quang-tong, and east by Fo-kien and Tchekiang. The country is extremely fertile, but so populous, that it can scarcely supply the wants of its inhabitants. They are people of great acuteness, and often rise to the highest dignities of the state. The mountains are covered with verdure, and contain mines of gold, silver, lead, iron, and tin. The rice produced here is very delicate, and several barks are loaded with it every year for the court. The porcelain is the most valuable in the empire. This province contains thirteen cities of the first class, and seventy-eight of the second and third.

KIAYAS, in Turkish polity, commanding officers of the janissaries, Arabs, &c., who, after the first year, lay down their employments, become veterans, and have a voice in the divan.

KIBBAN, or Midan, a considerable town of Koordistan, at the foot of a high mountain, and surrounded by narrow and deep defiles. The neighbourhood abounds with mines of copper and iron. It lies about a mile and a half from the Euphrates, and eighty miles west of Diarbekir.

KIBE, *n. s.* { From Germ. *kerb*, a cut—

KIBED, *adj.* { Skinner; from Welsh *kibwé*—Minsheu. An ulcerated chilblain; a chap in the heel caused by the cold. Kibed, troubled with chilblains.

If 'twere a *kibe*, 'twould put me to my slipper.

Shakspeare.

The toe of the peasant comes so near the heel of our courtier, that it galls his *kibe*.

Id.

One boasted of the cure, calling them a few *kibes*.

Wiseman.

KIBITKA, the name of a Russian travelling carriage, which contains two persons. In shape it resembles a cart of about five feet in length, the hinder half being covered with a semicircular tilt like a waggon, made of laths, interwoven with bark. The Russians, when travelling, place a feather bed at the bottom of the kibitka, and having thus rendered bearable the jolts and concussions occasioned by the uneven timber roads, comfortably doze away the journey.

KICK, *v. a.*, *v. n.*, & *n. s.* { Teut. *kauchen*;

KICK'ER, *n. s.* { Lat. *calcare*. To strike with the foot; to beat the foot in anger or

contempt: a blow with the foot. Kicker, one who strikes with his foot.

Jeshurun waxed fat and *kicked*. *Deut.* xxxii. 15.
Wherefore kick ye at my sacrifice, which I have commanded? *1 Sam.* ii. 29.

For, trewely, ther n'is non of us all,
If any wight woll claw us on the gall,
That we n'il *kike* for that he saith us soth,
Assay, and he shall find it that so doth.

Chaucer. The Wife of Bath's Tale.

The doctrines of the holy Scriptures are terrible enemies to wicked men, and this is that which makes them *kick* against religion, and spurn at the doctrines of that holy book.

What, are you dumb? Quick, with your answer,
quick,
Before my foot salutes you with a *kick*.

Dryden's Juvenal.

He must endure and digest all affronts, adore the foot that *kicks* him, and kiss the hand that strikes him.

It angoreth Turenne once upon a day,
To see a footman *kicked* that took his pay.

Pope.

Another, whose son had employments at court, valued not, now and then, a *kicking* or a *caning*.

Swift.

KICK'SHAW, *n. s.* This word is supposed to be only a corruption of *quelque chose*, something: yet Milton seems to have understood it otherwise; for he writes it *kickshoe*, as if he thought it used in contempt of dancing.—Johnson. But there is a Belgic *kyckshouw*, a trifle, from which it may directly come. Something uncommon, fantastical, or ridiculous; a dish so changed by the cookery that it can scarcely be known.

Some pigeons, a joint of mutton, and any pretty little tiny *kickshaws*.

Shakspeare. Henry IV.

Shall we need the monsieurs of Paris to take our youth into their slight custodies, and send them over back again transformed into minicks, apes, and *kick-shoes*?

Milton.

In wit, as well as war, they give us vigour;
Cressy was lost by *kickshaws* and soup-meagre.

Kenton.

KICK'SY-WICKSEY, *n. s.* From kick and wince. A made word, in ridicule and disdain of a wife.

He wears his honour in a box, unseen,
That hugs his *kicksy-wicksey* here at home,
Spending his manly marrow in her arms.

Shakspeare.

KID, *n. s.* & *v. a.* Dan. *kid*; Welsh *cidwlcn*. The young of a goat; a bundle of heath: to bring forth kids.

Therto, she coude skip, and make a game,
As any *kid* or calf folowing his dame!

Chaucer. The Miller's Tale.

Next came fresh Aprill, full of lustyherd,
And wanton as a *kid*, whose home new buds;

Upon a Bull he rode, the same which led
Europe floating through the' Argolick fluds.

Spenser's Faerie Queene.

There was a herd of goats with their young ones, upon which sight Sir Richard Graham tells, he would snap one of the *kids*, and carry him close to their lodging.

Sporting the lion ramped, and in his paw
Dandled the *kid*.

Milton.

So *kids* and whelps their sires and dams express;
And so the great I measured by the less.

Dryden.

While bright the dewy grass with moon-beams shone,
And I stood hurling in my *kids* alone,
How often have I said (but thou had'st found
Ere then thy dark cold lodgment under ground)
Now Damon sings, or springes set for hares,
Or wicker-work for various use prepares.

Cowper. Death of Damon.

KID'DER, *n. s.* Teut. *kauten*, to chaffer. An engrosser of corn to enhance its price.

KID'DERS, in law, are those that carry corn, dead victuals, or other merchandise, up and down to sell: every person being a common badger, kidder, lader, or carrier, &c., says the stat. 5 Eliz. cap. 12. They are called kidders, 13 Eliz. cap. 25.

KID'DER (Dr. Richard), a learned English bishop, born in Sussex, and educated at Cambridge. In 1689 he was installed dean of Peterborough; and, in 1691, was nominated bishop of Bath and Wells, in the room of Dr. Thomas Ken. He published, 1. The Young Man's Duty; 2. A Demonstration of the Messiah, 3 vols. 8vo.; 3. A Commentary on the Five Books of Moses, 2 vols. 8vo.; and several other valuable tracts. He was killed in his bed, together with his lady, by the fall of a stack of chimneys, in his palace at Wells, during the great storm in 1703. The bishop, in the dissertation prefixed to his commentary on the five books of Moses, having reflected upon Monsieur Le Clerc, some letters passed between them in Latin, which were published by Le Clerc, in his *Bibliotheque Choisie*.

KID'DERMINSTER, or KEDDERMINSTER, a market town and parish of Worcestershire, seated under a hill on the Stour, near the Severn, 128 miles from London. It contains about 2000 houses, and 11,000 inhabitants, who carry on an extensive trade in the various branches of weaving. In 1735 a carpet manufactory was established with success, so as to employ above 250 looms; and there are upwards of 700 looms employed in the silk and worsted. Many hands are employed as spinners, &c., in the carpet looms only in the town and neighbourhood; others in preparing yarn, which is used in different parts of England in carpeting. The silk manufactory was established in 1755. The town is remarkably healthy; and has also an extensive manufacture of quilting in the loom, in imitation of Marseilles quilting. Woollen plush is also made here for the Portuguese market. The water of the river Stour is said to contribute much to the celebrity of the manufactures of this place, by its remarkable property of striking and securing their colors. The lord of the manor holds a court leet for the prevention of encroachments and public nuisances, and here is a court of requests for debts under 40s. The church, which stands in a commanding situation, is a venerable Gothic structure, very large, and has lately been ornamented and repaired at considerable expense. In it are several curious ancient monuments. The tower adjoining the church is a strong, lofty pile, containing eight bells. The town-hall is a large commodious brick building, being in part occupied by the prison; on the ground-floor are butchers' stalls; and, above, is the council-chamber, for transacting public business. There are also in Kidderminster a Presbyterian meeting-house, two good free

schools, a charity-school, and two alms-houses &c. It is governed by a bailiff, twelve burgesses, twenty-five common councilmen, &c. And sends one member to parliament. By the inland navigation it has communication, by the junction of the Severn canals, with the rivers Mersey, Dee, Ribble, Ouse, Trent, Derwent, Severn, Humber, Thames, Avon, &c.; which navigation, including its windings, extends above 500 miles, in the counties of Lincoln, Nottingham, York, Lancaster, Westmoreland, Chester, Stafford, Warwick, Leicester, Oxford, Worcester, &c. The parish extends to Bewdly Bridge, has a weekly market, and three fairs.

KIDDLE, or KIDEL, a dam or wear in a river with a narrow cut in it, for laying pots or other engines to catch fish. The word is ancient; for in *Magna Charta*, cap. 24, we read, *Omnes kidelli deponantur per Thamesiam et Medwayam, et per totam Angliam, nisi per costeram maris.* And by king John's charter power was granted to the city of London, *de kidellis amovendis per Thamesiam et Medwayam*. A survey was ordered to be made of the wears, mills, stanks, and kiddles, in the great rivers of England, 1 Hen. IV. Fishermen of late corruptly call these dams kettles; and they are much used in Wales, and on the coasts of Kent.

KID'NAP, *v. a.* From Dut. *kind*, a child, and *nab*. To steal children; to steal human beings.

KID'NAPPER, *n. s.* From kidnap. One who steals human beings; a manstealer.

The man compounded with the merchant upon condition that he might have his child again; for he had smelt it out, that the merchant himself was the kidnapper.

These people lie in wait for our children, and may be considered as a kind of *kidnappers* within the law.

Spectator.

KIDNAPPING the forcible abduction or stealing away of man, woman, or child, from their own country, and sending them into another. This crime was capital by the divine law: see Exodus xxi. 16. So likewise, in the civil law, the offence of stealing men and children, which was called *plagium*, and the offenders *plagiarii*, was punished with death. This is unquestionably a very heinous crime, as it robs the king of his subjects, banishes a man from his country, and may in its consequences be productive of the most cruel and disagreeable hardships; and therefore the common law of England has punished it with fine, imprisonment, and pillory. And also the statute 11 and 12 W. III., c. 7, though principally intended against pirates, has a clause that extends to prevent the leaving such persons abroad as are thus kidnapped or spirited away; by enacting, that if any captain of a merchant vessel shall (during his being abroad) force any person on shore, or wilfully leave him behind, or refuse to bring home all such men as he carried out, if able and desirous to return, he shall suffer three months' imprisonment.

KIDNEY, *n. s.* Goth. *kiud*, the belly, probably, and Sax. *nar*, the reins. A gland in the ABDOMEN. See that article.

A youth laboured under a complication of diseases, from his mesentery and kidneys.

Wiseman's Surgery.

Sort; kind: in ludicrous language.

Think of that, a man of my *kidney*; think of that, that am as subject to heat as butter; a man of continual dissolution and thaw. *Shakspeare.*

There are millions in the world of this man's *kidney*, that take up the same resolution without noise. *L'Estrange.*

KIDNEY, in anatomy, an abdominal viscus, shaped like a kidney-bean, that secretes the urine. There are two kidneys. One is situated in each lumbar region, near the first lumbar vertebra, behind the peritonæum. This organ is composed of three substances; a cortical, which is external, and very vascular; a tubulous, which consists of small tubes; and a papillous substance, which is the innermost. The kidneys are generally surrounded with more or less adipose membrane, and they have also a proper membrane, *membrana propria*, which is closely accreted to the cortical substance. The renal arteries, called also emulgents, proceed from the aorta. The veins evacuate their blood into the ascending cava. The absorbents accompany the blood-vessels, and terminate in the thoracic duct. The nerves of the kidneys are branches of the eighth pair and great intercostal. The excretory duct of this viscus is called the ureter. See ANATOMY.

KIDNEYBEAN, *n.s.* *Phascolus*: so named from its shape. A leguminous plant.

Kidneybeans are a sort of cod ware, that are very pleasant wholesome food. *Mortimer's Husbandry.*

KIDNEY-BEAN. See PHASEOLUS.

KIDNEYVETCH, *n.s.* *Anthillis*. A plant.

KIDNEYWORT, *n.s.* *Cotyledon*. A plant.

KIDNEY-WORT. See SAXIFRAGA.

KIEL, a considerable town of Denmark, the capital of the duchy of Holstein, with a castle, and a university founded in 1665. It stands upon a small peninsula in a bay of the Baltic, and has a very commodious harbour. It is one of the largest and most commercial places in Holstein; and the neighbourhood is better cultivated than any other parts of the duchy. By its canal, which unites the Northern Sea with the Baltic, the whole duchy has been improved and enriched. See DENMARK. The imports are cotton, sugar, coffee, tobacco, and salt; the exports, corn, butter, cheese, and bacon; but ship-building and mercantile agency are the principal occupations. Hats, tobacco, starch, and sugar refining, are the only manufactures. A great annual fair takes place in January; at other times Kiel displays little activity. The environs are beautiful. Population about 7000. Kiel is twenty-six miles south-east of Sleswic, and fifty-one north of Hamburg.

KIEMA, a promontory of Switzerland, on the west shore of the lake of Zug; of which the ground belongs to the canton of Lucern, and the wood to that of Zug.

KIEN-LONG, late emperor of China, was born in 1710, and, in 1735, succeeded his father, Yuntschin. Until 1759 he reigned in peace; then he engaged in war with the Songarians, and, taking possession of Calmuc Tartary, extended his dominions to the frontiers of Siberia. This gave him also the command of Thibet. He was now in his turn invaded by the sovereign of Ava, but the attempt finally failed. Kien-Long favored

privately the Christian religion it is said: the missionaries were however obliged to proceed with caution. Several of them were in the emperor's immediate service. On the suppression of the Jesuits, China being less visited by Europeans than heretofore, Kien-Long sent to Canton, and invited to his capital artists and learned men, particularly astronomers, of all the European nations. He possessed on his own part a taste for poetry and natural history; of which we have specimens in his panegyries on the tea-plant, and on, the city of Moukden, both of which have been translated into French by father Amiot. He supplied also a version of a poem by the emperor, on the conquest of Calmuc Tartary. Kien-Long engaged some French artists to copy the Chinese paintings of his victories; but Louis XV. had them engraved for him at his own expense. This emperor established a library of no fewer than 600,000 volumes; and admitted three books, written by the Jesuits, on the Christian religion. A description of the Chinese empire, which appeared in Busching's Magazine, was compiled by his order. He died at Pekin in 1786, after a reign of half a century.

KIERNANDER (John Zechariah), an early missionary of modern times, was born November 21st, 1711, at Akslad, in Sweden, and educated in the school of Lindkoping, and the university of Upsal. At the age of twenty-four he went to Halle, where he was patronised by professor Franke, who recommended him to the London Society for promoting Christian Knowledge. He was accepted as a missionary to the East; and, in 1740, arrived at Cuddalore, as colleague to Mr. Guester; but in 1744, on the removal of that gentleman to Madras, he had the sole charge of the mission. In 1749 Mr. Kiernander preached, in one day, a sermon in the same church, to the English, Tamulian, and Portuguese congregations there. In 1758, on the surrender of Cuddalore to the French, he went to Tranquebar; whence he removed to Calcutta, where he opened a school, and preached sometimes in English, at others in German, and occasionally in Portuguese. His celebrity was so great, that the emperor Shah Aulum solicited from him copies of the Psalter and New Testament in Arabic. In 1767 Mr. Kiernander laid the foundation of a church at Calcutta, which was opened in 1770, under the name of Beth Tephillah. The cost, which was about £8000, fell almost wholly upon himself: he also erected, close to it, a school capable of holding 250 children. Becoming however, by this means, involved in debt, the church which he built was seized, and would have been desecrated, had not the late Mr. Grant purchased it, and placed it in trust for pious uses. Mr. Kiernander, after this, officiated as chaplain to the Dutch at Chinsurah; but when that settlement was taken, in 1795, he became a prisoner of war to the English, and returned to Calcutta, where he died, April 10th, 1799.

KIEV, a government of the south-west of European Russia, comprising a part of the Ukraine, and bounded by the provinces of Podolia, Volhynia, Minsk, Tschernigov, and Poltava, from which last it is separated by the Dnieper. As constituted by the emperor Paul, in 1797, it

consisted of a territory lying on both sides of the Dnieper; but a subsequent arrangement by the emperor Alexander has given all the part on the east side of that river to the government of Tschernigov and Poltava; while that of Kiev received a large addition out of Poland on the west. It lies between $28^{\circ} 40'$ and $33^{\circ} 25'$ of E. long., and $48^{\circ} 30'$ and $51^{\circ} 50'$ of N. lat.; and has a territorial extent of 21,000 square miles. It is divided into twelve circles, and contains seventy-seven, great and small, towns. The surface is level, and the soil produces abundance of corn for exportation, and hemp, flax, fruit, and vegetables. It abounds also in pasture, and exports a number of cattle and horses; honey, and Polish cochineal. The population is scattered, and the manufactures are few and small. The commerce of the country is chiefly in the hands of Jews. Population about 1,000,000.

KIEV, Kiov, or Krow, the capital of the preceding province, stands on an acclivity on the right bank of the Dnieper, and consists properly of three towns, viz. the Old Town, Podol or the Lower Town, and the fortress of Petscherski. The three parts are connected by entrenchments; but the last alone is regularly defended. Here are barracks, magazines, officers' houses, several churches, and a government-house, with public gardens. Below the monastery, founded in the eleventh century, are a number of subterraneous vaults, divided into apartments and chapels, in which are kept a number of corpses in an undecayed state, the relics of saints and martyrs. In the old town is the residence of a Greek archbishop; and a cathedral. Agriculture, and the distilleries of Kiev, are the chief employments of the town and neighbourhood. Here is also a gymnasium, and an old established high-school, which formerly bore the name of an academy. It was erected into a university in 1803.

This dull town was founded, it is said, in 430, and it was long the capital of the kingdom of Russia. It fell, in 1240, into the hands of the Tartars, and afterwards into those of the Lithuanians and Poles; but was restored to Russia in the latter part of the seventeenth century; and the church of St. Sophia, being the earliest Christian church in Russia, has always been an object of great interest. Eighty-three miles east of Zytomiers, and 270 north by west of Cherson.

KIGGELARIA, in botany, bastard euonymus: a genus of the decandria order, and diœcia class of plants; natural order thirty-seventh, columnifera. Male CAL. quinquepartite: COR. pentapetalous; there are five trilobous glandules; the anthers are perforated at top. Female CAL. and COR. in the male; there are five styles: CAPS. unilocular, quinquevalved, and polyspermous. There is but one species, viz. K. Africana. It has an upright woody stem, and purplish branches, growing fifteen or eighteen feet high; oblong, sawed, alternate leaves; and diœcious, greenish-white flowers, in clusters from the sides of the branches; succeeded by globular rough fruit, the size of cherries, containing the seeds, which seldom ripen here. Being a native of warm climates, it must be constantly kept in a stove in this country. It is propagated by seeds, layers, or cuttings, but most readily by seeds.

KILDA (St.), one of the Western Islands of Scotland. It lies in the Atlantic, and is about three miles long from east to west, and two broad from north to south. The soil is better calculated for pasture than tillage. The natives prefer rearing sheep, and killing wild fowl, to the more toilsome business of husbandry. All the ground hitherto cultivated in this island lies round the village. The soil is thin, full of gravel, and naturally poor; but it is, however, rendered extremely fertile by the industry of the husbandmen, who manure every inch of their ground, so as to convert it into a kind of garden. Barley and oats are the only sorts of grain known at St. Kilda. Potatoes have been but lately introduced, and only small quantities raised. On the east side of the island, a quarter of a mile from the bay, lies the village, where the whole inhabitants of the island live together. Their houses are built in two rows, regular, and facing one another, with a tolerable causeway in the middle. These habitations are flat in the roof, or nearly so. The island being peculiarly subject to violent squalls and hurricanes, were their houses raised higher the first winter storm would bring them down about their ears. The walls are made of a rough gritty kind of stones huddled together, without lime or mortar, from eight to nine feet high. Their method of catching wild fowl is remarkable. The men are divided into fowling parties, each consisting of four persons distinguished for their agility. Each party must have at least one rope, about thirty fathoms long, made of a strong raw cow's hide, salted and cut circularly into three thongs of equal length, which, being closely twisted together, form a three-fold cord, able to sustain a great weight, and durable enough to last for two generations. To prevent the injuries it would receive from the sharp edges of the rocks, against which they often strike, the cord is covered with sheep skins, dressed in the same manner. This rope is the most valuable implement of which, in St. Kilda, a man can be possessed. In a testament it makes the first article in favor of the eldest son; should it fall to a daughter's share it is reckoned equal in value to two good cows. By the help of such ropes people, linked together in couples, each having either end of the cord fastened about his waist, go frequently through the most dreadful precipices: when one of the two descends, his colleague sets himself on a strong shelf, and takes care to have such sure footing that, if his fellow adventurer makes a false step, he may be able to save him.

KILDARE, a county of Ireland, bounded on the north by Meath, on the east by Dublin and Wicklow, on the south by Carlow, and on the west by King's and Queen's Counties. It is about forty-one miles long, and twenty-seven broad, and contains 392,397 English acres; of which four-fifths are arable, meadow, and pasture, and the remainder bog. It is in the province of Leinster, and archbishopric of Dublin: and there are fourteen baronies and half baronies, in all, in this county, subdivided into 113 parishes.

The surface of Kildare is undulating, and often presents a pleasing landscape: but its

climate is thought to be more humid than that of any other part of Ireland. On the west the bay of Allen and similar tracts occupy the greater part of the county.

Its rivers are the Liffey, Boyne, and Barrow; and it enjoys the advantages of the Grand and Royal Canals. The former, entering it from the north-east, proceeds in a west and north-west direction, till it passes into King's County. At Lowton a branch leaves the main trunk, and advances to the town of Athy, on the south-west boundary, and from this the navigation is continued southward on the river Barrow, which, soon after leaving Athy, becomes the boundary with Queen's County. The Royal Canal passes through its northern quarter from east to west, and then enters the county of Meath. The Boyne and Barrow rise in the bog of Allen and its neighbourhood.

Potatoes are every where cultivated: with regard to scientific agriculture, the course of cropping, with few exceptions, is the same as it has been for a century, viz. fallow, wheat, oats. Oxen are employed in ploughing, and horses for carriages; but in many instances four or six of these animals are mixed together in the plough. Mules are also kept on many farms. The rent of the arable and pasture land in 1807 was estimated at a little more than 20s. the Irish acre.

The great landowner of the county is the Duke of Leinster: it sends two members to the imperial parliament, but has no borough nor large towns. Common labor is said by Mr. Wakefield to yield 1s. 6d. a-day for men, and 10d. for women and children; and in hay and corn harvest 2s. 8d. Potatoes were at this time 5d. a stone, beef and mutton 6d. per pound, oatmeal 18s. per cwt. milk per quart 2d., and butter-milk ½d. in summer, and 3d. in winter. Under these circumstances the population has doubled since 1790; and the Catholics are to the Protestants in the proportion of thirty to one. Athy on the Barrow in the south-west of the county, and Naas on the north-east, are alternately the assize towns; the others are Kildare, Monasterevan, Castle Dermot, on the south and west; Leixlip, Maynooth, and a few others, on the north and east. At Celbridge on the Liffey is a small woollen manufactory. At Maynooth about 200 Catholic students are trained for the priesthood, and accommodated with lodgings and commons. Each pays a small sum as entrance money, which, with other expenses, may amount to £20 a year; the general charges of the establishment being supported by an annual parliamentary grant.

KILDARE, the county town, is situate on a rising ground, twenty-five miles south-west of Dublin, and is celebrated for its Curragh, the Newmarket of Ireland. This common, or lawn, containing nearly 5000 acres of the softest turf, on a fine dry loam, is generally covered with flocks of sheep. It was once a forest of oaks. The races are held in April, June, September, and October. Here was a celebrated nunnery, founded about the year 584 by St. Bridget. This place is also noted for the remains of other religious houses; and a round tower in good preservation, 130 feet high, built of white granite to about twelve feet above the ground, the rest

being of blue stone the door is fourteen feet from the ground.

KIL'DERKIN, n. s. Dut. *kindekin*, a baby, says Dr. Johnson; but more probably from Lat. *quatuor*, four: as Teut. *chotern*, chadron. A small barrel; the fourth part of a hogshead.

Make in the *kilderkin* a great bung-hole of purpose.
Bacon.

A tun of man in thy large bulk is writ;
But sure thou'rt but a *kilderkin* of wit.

Dryden.

KILIAN (Lucas), an eminent German engraver, born at Augsburg, who flourished at the beginning of the seventeenth century. His style of engraving bears no small resemblance in many particulars to that of Henry Goltzius, and of John Mullar his disciple. He went to Italy to complete his studies. Few artists have manifested a greater command of the graver than Kilian, whether we consider the facility with which the strokes are turned upon each other, or the firmness with which they are executed; though, by paying too close attention to this part of the art, he neglected the correctness of the outlines, and fatigued the lights with unnecessary work; by which means he broke the masses, and often destroyed the effect of his prints. The naked parts of the human figure are seldom well expressed: the extremities especially are in general heavy, and sometimes incorrect. Upon the works of this master, however, it appears that Balechou formed his taste. His works are exceedingly numerous. There were several other engravers of the same name and family, but of inferior merit.

KILKENNY, a county of Ireland, in the province of Leinster, bounded on the south by that of Waterford, north by Queen's county, west by that of Tipperary, east by those of Wexford and Catherlogh, and north-west by Upper Ossory. Its greatest length from north to south is thirty-eight miles; and breadth from east to west eighteen. It contains ten baronies, and is one of the most healthy, pleasant, and populous counties in Ireland. It contains 287,650 Irish acres, 172 parishes, and one borough.

KILKENNY, the capital of the above county, lies seventy-five miles south-west of Dublin. It was named from the cell or church of Canice, a learned monk of this county; and is one of the most elegant cities in the kingdom. It is the seat of the bishop of Ossory, which was translated from Agabo in Ossory, about the end of Henry II.'s reign, by bishop O'Dullany. The city is pleasantly situated on the Neor, a navigable river that runs into the harbour of Waterford. It is said that its air is without fog, its water without mud, its fire without smoke, referring to the well-known Kilkenny coal, and its streets paved with marble, of which there are large quarries near the town. Its color is black, it takes a fine polish, and is beautifull, intermixed with white granite. The air too is very salubrious. The city is governed by a mayor, recorder, aldermen, and sheriffs. This city was once a place of great importance, as appears by the venerable ruins yet remaining of churches, monasteries, and abbeys; which, even in their dilapidated state, exhibit such specimens

of taste in architecture, as may vie with any modern improvements, and the remains of its gates, towers, and walls, show it to have been a place of great strength. Here too parliaments were anciently held. It has two churches, and several catholic chapels; barracks for a troop of horse and four companies of foot; a market twice a week, and seven fairs. The cathedral, which stands in a sequestered situation, is a venerable Gothic pile. The bishop's palace is a handsome building, and communicates by a covered passage with the church. The castle was built in 1195, on the site of one destroyed by the Irish in 1173. The site was originally a conoid, the elliptical side abrupt and precipitous, with the river running rapidly at its base; here the natural rampart was faced with a wall of solid masonry forty feet high; the other parts were defended by bastions, curtains, towers, and out-works; and on the summit the castle was erected, which is now in the possession of the Ormond family. The college, originally founded by the Ormond family, has been rebuilt in an elegant style. There are two very fine bridges of cut marble over the Nore. The Ormond family also built and endowed a free-school in this city. Here are the ruins of three old monasteries, called St. John's, St. Francis's, and the Black Abbey. The chief manufactures are, coarse woollen clothes, fine blankets, and of starch. The Kilkenny coal-pits are within nine miles of the town. This city was incorporated by James I. in 1609. The borough of St. Canice, or Irishtown, enjoyed very ancient prescriptive rights. A close roll, of 5 Edward III. A. D. 1376, forbids the magistrates of Kilkenny to obstruct the sale of victuals in the market of Irishtown; and, lest the ample grants made to Kilkenny might be interpreted to include Irishtown, the corporation of the latter secured their ancient rights by letters patent, 15 Edward IV. A. D. 1474. These renew their former privileges, and appoint a portreeve to be chosen every 21st September, and sworn into office on the 11th October. The portreeve's prison was at Troy-gate. Whenever the mayor of Kilkenny came within Water-gate, he lowered the point of the city sword, to show he claimed no pre-eminence within the borrough.

KILL, *v. a.* { Anciently to quell. Saxon

KILLER, *n. s.* { spellan; Dut. *kelen*. To deprive of life; to put to death, as an agent; to destroy animals for food; to deprive of life as an instrument; to deprive of vegetative life. Killer, one who destroys life.

Ye have brought us forth into this wilderness, to kill this whole assembly with hunger.

Exodus xvi. 3.

Shall I take my bread and my flesh, that I have killed for my shearers.

1 Sam. xxv. 11.

But at the lest—though I therwith me kill—I shall not spare to waile and wepe my fill.

Chaucer. Lament of Mary Magdalene.

Wilt thou for the old lion hunt, or kill

His hungry whelps! and for the killer kill,

When couched in dreadful dens?

Sandys.

Darest thou resolve to kill a friend of mine?

—Please you, I'd rather kill two enemies.

Shakspeare. Richard III.

Try with oil, or barm of drink, so they be such things as kill not the bough.

Bacon.

What sorrow, what amazement, what shame was in Amphialus, when he saw his dear foster-father find him the killer of his only son!

Sidney.

So rude a time,
When love was held so capital a crime,
That a crowned head could no compassion find,
But died, because the killer had been kind.

Waller.

If killing birds be such a crime,
(Which I can hardly see,)
What think you, Sir, of killing time,
With verse addressed to me?

Cowper. Bean's Reply.

When the rich soil teemed with youth's generous flowers,

I felt thee, sunshine.—Now thy rayless light,
Falls like the cold moon on a blasted heath,
Mocking its desolation.—Speak thy vow—
I will not chide thee if the words should kill me.

Maturin. Bertram.

Would that the hour were come! we will not scotch,
But kill.

Byron. Marino Faliero.

KILLALA, a sea-port of Ireland, in the county of Mayo, formerly a bishop's see, twenty-one miles north of Castlebar. This town, during the rebellion, suffered much by the depredations of both rebels and loyalists: but the bishop of Killala, who was himself a very loyal subject, says that the latter were by far the most unmerciful; plundering, burning, and destroying wherever they went.

KILLALOE, a town and once a bishop's see in the county of Clare and province of Munster, in Ireland, one hundred and ten miles from Dublin, otherwise called Louinia. It was anciently written Kill-da-Lua, i.e. the church of Lua, from Lua, or Molua, who, about the beginning of the sixth century, founded an abbey near this place. St. Molua appears to have derived his name from Loania, the place of his residence, as was customary amongst the ancient Irish. On the death of St. Molua, St. Flannan his disciple, and son of the chief of the district, was consecrated bishop of this place at Rome about A. D. 639, and the church endowed with considerable estates, by his father Theodoric. Towards the close of the twelfth century, the ancient see of Roscrea was united to that of Killaloe. At Killaloe is a bridge over the Shannon of nineteen arches; and here is a considerable salmon fishery. There are many ancient buildings in and about this town. The cathedral is a Gothic edifice in form of a cross, with the steeple in the centre, supported by four arches; it was built by Donald, king of Limerick, in 1160. There is a building near it, once the oratory of St. Molua; and there is another of the same kind in an island on the Shannon, having marks of still higher antiquity. The see-house of the bishop is at Clarisford, near to Killaloe. Adjoining to the cathedral are yet the remains of the mausoleum of Brian Boru.

KILLARNEY, a post-town of Ireland, in the county of Kerry and province of Munster, seated near Lough Leane, or the Lake of Killarney. It is 224 miles from Dublin, and has two fairs. Within a mile and a half of this place are the

ruins of the cathedral of Aghadoe, an ancient bishopric united to Ardfer.

KILLARNEY, a beautiful lake of Ireland, in the county of Kerry, otherwise called Lough Lean, from its being surrounded by high mountains. It is divided into three parts, called the Lower, Middle, and Upper Lake. The northern, or lower lake, is six miles in length, and from three to four in breadth. On the side of one of the mountains is O'Sullivan's Cascade, which falls into the lake with a tremendous roar. The view of this sheet of water is uncommonly fine, appearing as if it were descending from an arch of wood, which overhangs it above seventy feet in height from the point of view. The islands are not so numerous in this as in the upper lake; but there is one of uncommon beauty, called Innisfallen, nearly opposite O'Sullivan's Cascade. The shore is formed into a variety of bays and promontories. Among the distant mountains Turk appears an object of magnificence; and Mangerton's more lofty, though less interesting summit, soars above the whole. Here is a celebrated rock, called the Eagle's Nest, which produces wonderful echoes; the report of a single cannon is answered by a succession of peals resembling the loudest thunder, which seem to travel the surrounding scenery, and die away among the distant mountains. The upper lake is four miles long, and from two to three broad. It is almost surrounded by mountains, from which descend a number of beautiful cascades. The islands in this lake are numerous, and afford an amazing variety of picturesque views. The centre lake, which communicates with the upper, is small in comparison with the other two, and cannot boast of equal variety; but the shores are, in many places, indented with beautiful bays, surrounded by dark groves of trees. The east boundary is formed by the base of Mangerton, down the steep side of which descends a cascade, visible for 150 yards. This fall of water is supplied by a circular lake near the summit of the mountain, called the Devil's Punch-Bowl; which, on account of its immense depth, and the continual over-flow of water, is considered as one of the greatest curiosities in Killarney. One of the best prospects which this admired lake affords, is from a rising ground near the ruined cathedral of Aghadoe.

KILJAS, a genus of stones belonging to the argillaceous class, found chiefly in Cornwall in England. Its texture is either lamellar or coarsely granular; the specific gravity from 2630 to 2666. It contains sixty parts of siliceous earth, twenty-five of argillaceous, nine of magnesia, and six of iron. The greenish kind contains more iron, and gives a green tincture to the nitrous acid.

KILLICRANKIE, a noted pass of Perthshire, formed by the lofty mountains impending over the Garrie, which rushes through a deep, darksome channel beneath. In the last century this was a pass of much danger and difficulty; a path hanging over a tremendous precipice, threatened the traveller with destruction upon the least false step. At present a fine road, formed by the soldiery, gives an easy access to the Highlands; and the two sides are joined by

a fine arch. Near the north end of this pass, in its open and uninimproved state, was fought, in 1689, the battle of Killicrankie, between the adherents of James II, under viscount Dundee, and of William III, under general Mackay. Dundee's army was very much inferior to that of Mackay's. When he came in sight of the latter, he found them formed in battalions ready for action. They consisted of 4500 foot, and two troops of horse. The Highlanders, under Dundee, amounted to little more than half that number. These he ranged instantly in order of battle. Maclean, with his tribe, formed the right wing. The Macdonalds of Sky, under their chieftain's eldest son, formed the left. The Camerons, the Macdonalds of Glengary, the followers of Clanronald, and a few Irish auxiliaries, were in the centre. A troop of horse was placed behind, under Sir William Wallace. The officers sent by James from Ireland were distributed through the whole line. His whole army stood in sight of the enemy for several hours on the steep side of a hill which faced the narrow plain where Mackay had formed his line. Dundee wished for the approach of night; a season suited for either victory or flight. At 5 P. M. a kind of slight skirmish began between the right wing of the Highlanders and the left of the enemy. But, neither army wishing to change their ground, the firing was discontinued for three hours. Dundee in the mean time flew from tribe to tribe, and animated them to action. At eight he gave the signal for battle, and charged the enemy in person at the head of the horse. The Highlanders, in deep columns, rushed suddenly down the hill. They kept their shot till they were within a pike's length of the enemy; and having fired their muskets, fell upon them sword in hand. Mackay's left wing could not for a moment sustain the shock. They were driven by the Macleans with great slaughter from the field. The Macdonalds on the left of the Highlanders were not equally successful. Colonel Hastings's regiment of foot stood their ground. They even forced the Macdonalds to retreat. Maclean with a few of his tribe, and Sir Evan Cameron at the head of his clan, fell suddenly on the flank of this gallant regiment, and forced them to give way. The slaughter ended not with the battle; 2000 fell in the field and the flight. The tents, baggage, artillery, and provisions of the enemy, and even king William's Dutch standard, which was carried by Mackay's regiment, fell into the hands of the Highlanders. The victory was now complete. But the Highlanders lost their gallant leader. Perceiving the unexpected resistance of colonel Hastings's regiment, and the confusion of the Macdonalds, Dundee rode rapidly to the left wing. As he was raising his arm, and pointing to the Camerons to advance, he received a ball in his side. The wound proved mortal; and with Dundee fell all the hopes of king James.

KILLIGREW (Thomas), son of Sir Robert Killigrew, knight, was born in 1611. He was page of honor to king Charles I., and groom of the bed-chamber to Charles II., with whom he suffered many years exile; during which he applied his leisure hours to the study of poetry, and

to the composition of several plays. After the Restoration he continued in high favor with the king; and, while he exercised his privilege as a jester, often uttered bold and useful truths. One anecdote will afford a specimen. One day Killigrew called on the king in his private apartments, habited like a pilgrim who was bent on a long journey. The king, surprised at the oddity of his appearance, asked him what was the meaning of it, and whither he was going? ‘To fetch back Oliver Cromwell,’ rejoined he, ‘that he may take some care of the affairs of England, for his successor takes none at all.’ Killigrew died in 1682, and was buried in Westminster Abbey.

KILLILEAGH, or KILLY-LEAGH, a town of Ireland, in the county of Down, eighty miles north-east from Dublin. It is the principal town in the barony of Duffrin; and seated on an arm of the lake of Strangford, from which it is supplied with a great variety of fish. The Hamiltons, earls of Clanbrassil, had a castle here at the upper end of the great street; at the lower end is a small bay, where ships lie sheltered from all winds; in the town are some good houses, a horse barrack, and a presbyterian meeting-house. On an eminence at a small distance from the town is a handsome church in the form of a cross. This place suffered much in the year 1641. A linen manufacture is carried on in it, and fine thread made, for which there is a great demand. The celebrated Sir Hans Sloane was born here, and his father Alexander Sloane was at the head of the Scottish colony which king James I. settled in it. The town was incorporated by that monarch.

KILLOUGH, or Port St. Ann’s a sea-port town of Ireland, in the county of Down, seventy-six miles from Dublin. It lies north of St. John’s Point, and has a good quay, where ships lie very safe. The town is agreeably situated; the sea flowing close by the houses, where ships ride in full view of the inhabitants. It has a good church, and a horse barrack, with good fishing in the bay; but the principal trade consists in the exportation of barley, and the importation of commodities for the adjacent country. A manufacture of salt is also carried on, and five fairs held in it. Near the town is a chartered working-school for the reception of twenty children. There is a remarkable well here, called St. Scordins’s well, highly esteemed for the extraordinary lightness of its water. It gushes out of a high rocky bank upon the shore, and never diminishes its quantity in the driest season. There is also a mineral spring near the school, the waters of which are both purgative and emetic. At a small distance from the town near the sea is a rock in which there is an oblong hole, whence, at the ebbing and flowing of the tide, a strange noise is heard, resembling the sound of a huntsman’s horn. The harbour is tolerably safe and commodious; some degree of caution is however necessary in entering it, for a rock stands in the middle of the entrance covered at half flood, commonly called the water rock. Either to the east or west of this rock is a secure passage, the inlet lying south by east and north by west. On the west side of the rock, open to Coney Island, is a strong quay,

and a basin for ships, where they are defended from all winds, within which the harbour on both sides affords good anchorage for vessels of 150 tons. At the end of the quay the channel is 400 yards wide.

KILLOW, n. s. This seems a corruption of coal, and low a flame, as soot is thereby produced.

An earth of a blackish or deep blue colour, and doubtless had its name from *kollow*, by which name, in the North, the smut or grime on the backs of chimneys is called. *Woodward.*

KILLYBEGS, a borough of Ireland, in the county of Donegal, and province of Ulster, 123 miles from Dublin. It is situated on the north side of Donegal Bay; but is a place of no great trade, though it has a harbour spacious enough to contain a large fleet; it has a bold and ample opening to the sea on the south, and is secured within by the shelter of high lands surrounding it: so that vessels may enter at any time of the tide, there being from five to eight fathom water. The herring fishery is the most considerable of any carried on here. It has two fairs.

KILMALLOCK, a town of Ireland, in the county of Limerick, sixteen miles from Limerick, and 107 from Dublin.—This town makes a conspicuous figure in the military history of Ireland. In the sixteenth century it was a populous place; and the remains of the wall, which entirely surrounded the town, are still to be seen. Edward the VI. granted a charter to it with many privileges, as did queen Elizabeth another, dated 24th of April 1584. In 1598 it was invested by the Irish forces, when the earl of Ormond hastened to its relief, and arrived in time to raise the siege: here was also some contest during the grand rebellion in 1641 and 1642. By an inquisition, 11th of August 29 Eliz. it appears that there had been an abbey in Kilmallock, called Flacispaghe; on which a stone house was erected. Sir James Ware informs us that an abbey of Dominicans, was built here in the thirteenth century by the sovereign, brethren, and commonalty. The parish church was formerly an abbey for regular canons, founded by St. Mochoallog, who died between the years 639 and 656. A fair is held on Whitsun-Tuesday.

KILMARNOCK, a populous and flourishing town of Ayrshire, noted for its manufacture of carpets, milled hosiery, and Scotch bonnets. It is a burgh of barony, governed by two bailies and seventeen councillors. Its first charter was granted in 1541, in favor of Thomas lord Boyd; its second in 1572, to William earl of Kilmarnock. In 1700 the magistrates obtained a grant from the Kilnarnock family of the whole common good, customs, &c., of the burgh. It has five incorporations, and two flourishing public schools, besides many private ones. In 1810 two acts of parliament were passed for paving, lighting, and watching the burgh and suburbs, for erecting a bridewell and a work-house, and for various other purposes of public utility. Among the other edifices, built under these acts, are, an elegant new town-house, an academy, and coffee-room. It is fifteen miles south-west of Glasgow.

KILMORE, a bishop’s see of Ireland in the county of Cavan. It was called in former ages

Clunes, or Clunis, i. e. the sequestered place; and is situated near Loch Eru. St. Fedlimid founded this bishopric in the sixth century; it was afterwards removed to an obscure village called Triburna: where it continued until 1454, when Andrew Mac-Brady, bishop of Triburna, erected a church on the site of that founded by St. Fedlimid, to whose memory it was dedicated, and named Kilmore, or the great church. At present there is neither cathedral, chapter, nor canon, belonging to this see, the small parish church contiguous to the episcopal house serving the purpose of a cathedral.

KILN, n. s. Sax. *cyln*; Swed. *kolna*; Lat. *culina*, an oven. A stove; a fabric formed for admitting heat, in order to dry or burn things contained in it.

I'll creep up into the chimney.—There they always use to discharge their birling-pieces: creep into the kiln hole. *Shakspeare.*

After the putting forth in sprouts, and the drying upon the *kitu*, there will be gained a bushel in eight of malt. *Bacon.*

Physicians chuse lime which is newly drawn out of the *kiln*, and not slack'd.

Morow's Mechanical Exercises.

KILN'DRY, v. a. Kiln and dry. To dry by means of a kiln.

The best way is to *kilndry* them. *Mortimer.*

KILWORTH, a town of Ireland, in the county of Cork, 108 miles south-west of Dublin. It is a flourishing place, with six fairs and a good church, at the foot of a large ridge of mountains called Kilworth mountains, through which a good turnpike road is carried from Dublin to Cork; below the town runs the river Funcheon, which is well stored with salmon and trout, and a mile south of this runs into the Blackwater. At this place is Moorpark, the superb seat of lord Mountcashel; and near it stands the castle of Clough-leagh, boldly situated on the Puncheon, and which has stood several sieges.

KIMBO, adj. Ital. *a schembo*. Crooked; bent; arched.

And set his hand in *kenebowe*, he lakked never a faute. *Chaucer. The Merchantes Second Tale.*

The kimbo handles seemed with bear's-foot carved, And never yet to table have been served. *Dryden's Virgil.*

He observed them edging towards one another to whisper; so that John was forced to sit with his arms a *kimbo*, to keep them asunder. *Arbuthnot.*

KIMCHI. We have three learned rabbies of this name in the twelfth, and the commencement of the thirteenth centuries. David and Moses were the sons of rabbi Joseph, born in Spain: all three were of considerable literary attainments; yet David exceeded both his father and brother in reputation. He is considered as the best grammarian of his nation. His known works are, a Grammar and Lexicon of the Hebrew tongue, which furnished Buxtorf with the materials for his Thesaurus, and Lexicon Linguae Hebrew. His commentaries on the books of the Old Testament are also esteemed. His grammar first appeared at Venice in 1545, and was soon followed by a treatise on the Hebrew radicals. Rabbi David passed the principal part of his life in Narbonne, and in the schism which took place between the Spanish and French Jews in 1232, respecting

the books of Maimonides, was appealed to as an arbitrator. He lived to an extreme old age, and died in 1240. The best edition of his *Dictionary Talmudicum* is that of 1506, folio.

KIN, n. s. Sax. *cynne*; Lat.

KIND, adj. & n. s. } *gigno*; Greek *γένος*.

KINDLY, adv. & adj. } Relation of consan-

KINNESS, n. s. } guinity or affinity; of

KIN'DRED, n. s. & adj. } the same race, family,

or generical class; a diminutive termination from kind, a child, Dutch; as manikin, minikin, Thomkin, Wilkin. Kind; benevolent; favorable; affectionate; bland; mild: kindness, benevolence; goodwill; love: kindly, in a courteous or benevolent manner: kind, race; generical class; relation: kindred, relative; congenial; cognate. *Kind* in Teutonic English answers to genus, and sort to species; though this distinction, in popular language, is not always observed: particular nature, manner, way, or sort.

And though so be that your *kinrede* be more stede-fast and siker than the *kin* of your adversaries; yet natholes you're *kinrede* is but a *farkinrede*; they ben litel sibbe to you and the *kin* of youre enemies ben nigh sibbe to them: and, certes, as in that, hir condiction is better than yours. *Chaucer. Tale of Melibeus.*

There mighten men the roiall egle finde,

That with his sharpe luke persieth the son;

And other egles of a lower *kinde*,

Of whiche that clerkes well devisen can.

Id. The Assemble of Foules.

Thus far we have endeavoured in part to open of what nature and force laws are, according to their *kins*. *Hooker.*

The burst

And the ear-deafening voice of the oracle,
Kin to Jove's thunder, so surprised my sense,
That I was nothing. *Shakspeare. Winter's Tale.*

I sometimes lay here in Corioli,
At a poor man's house: he used me *kindly*.

Shakspeare.

The skilful shepherd peeled me certain w'nds,
And in the doing of the deed of *kind*,
He stuck them up before the fulsome ewes. *Id.*

An old mothy saddle, and the stirrups of no *kin-dred*. *Id.*

Tumultuous wars

Shall *kin* with *kin*, and *kind* with *kind* confound. *Id.*

He did give the goods of all the prisoners unto those that had taken them, either to take them in *kind*, or compound for them. *Bacon's Henry VII.*

You must use them with fit respects, according to the bonds of nature; but you are of *kin*, and so a friend to their persons not to their errors. *Id. Advice to Villiers.*

Then is the soul from God; so pagans say, Which saw by nature's light her heavenly *kind*, Naming her *kin* to God, and God's bright ray, A citizen of Heaven, to earth confined. *Davies.*

Like them their armour seemed full near of *kin*: In this they only differ; the elder bent

His higher soul to Heaven; the younger twin 'Mongst mortals here his love and *kindness* spent. *Fletcher's Purple Island.*

This competency I beseech God I may be able to digest into *kindly* juice, that I may grow thereby. *Hammond.*

Nor needs thy juster title the foul guilt Of Eastern kings, who, to secure their reign, Must have their brothers, sons, and *kindred* slain. *Denham.*

These soft fires
Not only enlighten, but with *kindly* heat,

Of various influence, foment and warm,
Temper or nourish. *Milton's Paradise Lost.*

As when the total kind
Of birds, in orderly array on wing,
Came summoned over Eden, to receive
Their names of thee. *Id.*

That both are animalia.
I grant; but not rationalia;
For though they do agree in *kind*,
Specifick difference we find. *Hudibras.*

The odour of the fixed nitre is very languid; but
that which it discovers, being dissolved in a little hot
water, is altogether differing from the stink of the
other, being of *kin* to that of other alcalizate salts.
Boyle.

From Tuscan Coritum he claimed his birth;
But after, when exempt from mortal earth,
From thence ascended to his *kindred* skies
A god. *Dryden.*

Through all the living regions do'st thou move,
And scatterest where thou goest the *kindly* seeds of
love. *Id.*

The' unhappy Palamon,
Whom Theseus holds in bonds, and will not free,
Without a crime, except his *kin* to me. *Id.*

Some of you, on pure instinct of nature,
Are led by *kind* to admire your fellow-creature. *Id.*

The father, mother, and the *kin* beside,
Were overborne by fury of the tide. *Id.*

Some of the ancients, like *kind* hearted men, have
talked much of annual refrigeriums, or intervals of
punishment to the damned, as particularly on the
great festivals of the resurrection and ascension. *South.*

God and Nature do not principally concern themselves in the preservation of particulars, but *kinds* and companies. *Id. Sermons.*

His grief some pity, others blame;
The fatal cause all *kindly* seek. *Prior.*

Love and inclination can be produced only by an
experience or opinion of *kindness* to us. *Rogers's Sermons.*

Some acts of virtue are common to Heathens and Christians; but I suppose them to be performed by Christians after a more sublime manner than among the Heathens; and even when they do not differ in *kind* from moral virtues, yet differ in the degrees of perfection. *Afterbury.*

The tax upon tillage was often levied in *kind* upon corn, and called decumae, or tithes. *Arbuthnot.*

He with a hundred arts refined,
Shall stretch thy conquest over half the *kind*. *Pope.*
Ye heavens, from high the dewy nectar pour,
And in soft silence shed the *kindly* shower! *Id.*

Who, with less designing ends,
Kindlier entertain their friends;
With good words, and countenance sprightly,
Strive to treat them all politely. *Swift.*
Heaven born who bringest our *kindred* home again,
Rescued, and givest eternity to Troy,
Long have the Laurentum and the Latian plains
Expected thee. *Cowper. Translation from Virgil's Æneid.*

The separation of chief friends
Is what their *kindness* most intends;

Their sport is your dissension. *Id. Friendship.*
What avails it?

The wretched have no country: that dear name
Comprises home, *kind kindred*, fostering friends,
Protecting laws, all that binds man to man—
But none of these are mine. *Maturin. Bertram.*
Ripped from all *kindred*, from all home, all things
That make communion sweet, and soften pain—
Byron. Prophecy of Dante.

I say he's innocent! And, were he not so,
Is our own blood and *kin* to shrink from us
In fatal moments? *Id. Two Foscari.*

KINCARDINE, a town of Perthshire, in the parish of Tulliallan. It is seated on the banks of the Forth, and was formerly called West Pans, from fifteen salt pans, wherein a salt manufacture was anciently carried on in it. It has a post-office and two weekly markets on Wednesday and Saturday. It has a good road-stead, where 100 vessels may ride with safety. They import wood, iron, flax, linseed, &c., from Holland and the Baltic; barley from England, &c., and export coals to Norway, Sweden, &c., and some of them are in the Mediterranean and Levant trade. Vessels of 200 and 300 tons have been built here.

KINCARDINESHIRE, or MEARNS. See MEARNS.

KIN'DLE, *v. a. & v. n.* { Saxon *cyndelan*;
KIND'LET, *n. s.* { Welsh *cinnu*. To
set on fire; to make to burn; to inflame the
passions; to exasperate; to heat or fire the
mind; to catch fire; to bring forth young in
rabbits: a kindler, one who lights a fire, or irri-
tates and exasperates.

He hath *kindled* his wrath against me, and counteth
me as one of his enemies. *Job xix. 11.*

When thou walkest through the fire, thou shalt not
be burnt, neither shall the flame *kindle* upon thee. *Isaiah xlvi. 2.*

He will take thereof, and warm himself; yea, he
kindleth it, and baketh bread. *Id. xlvi. 15*

Had *kindled* such coles of displeasure,
That the good man noulde stay his leasure,
But home him hasted with furious hate
Encreasing his wrath with many a threate. *Spenser. Shephearde's Calendar.*

I've been to you a true and humble wife;
At all times to your will conformable:
Ever in fear to *kindle* your dislike. *Shakspeare.*
Are you native of this place?
As the coney that you see dwells where she is *kindled*. *Id.*

I was not forgetful of those sparks, which some
men's distempers formerly studied to *kindle* in par-
liaments. *King Charles.*

Thus one by one *kindling* each other's fire,
Till all inflamed, they all in one agree. *Daniel.*
Each was a cause alone, and all combined
To *kindle* vengeance in her haughty mind. *Dryden.*

If the fire burns vigorously, it is no matter by
what means it was at first *kindled*: there is the same
force and the same refreshing virtue in it, *kindled* by
a spark from a flint, as if it were *kindled* from the sun. *South.*

Now is the time that rakes their revels keep
Kindlers of riot, enemies of sleep. *Gay.*
There soon ye shall perceive a *kindling* flame
Glow for that infant God from whom it came. *Cowper. Nativity.*

Thou sun! which shinest on these things, and Thou!
Who *kindlest* and who quenches suns—Attest!
I am not innocent—but are these guiltless? *Byron. Marino Faliero.*

KINDRED, in law, persons related to one another, whereof the law reckons three degrees or lines viz. the descending, ascending, and collate-
ral lines. See CONSANGUINITY, and INHERIT-

ANCE. On there being no kindred in the descending line, the inheritance passes in the collateral one.

KINE, n. s. Sax. cuna; plur. of cow.

To milk the kine,

Ere the milk-maid fine

Hath opened her eyne. *Ben Jonson.*

A field I went, amid' the morning dew,
To milk my kine. *Gay.*

When Aulus the nocturnal thief made prize
Of Hermes, swift-winged envoy of the skies,
Hermes, Arcadia's king, the thief divine,
Who, when an infant, stole Apollo's kine.

Couper. A Thief.

— in this blazing palace,
And its enormous walls of reeking ruin,
We leave a nobler monument than Egypt.
Hath piled in her brick mountains, o'er dead kings
Or kine, for none know whether those proud piles
Be for their monarch, or their ox-god Apis.

Byron. Sardanapalus.

KING, n. s. & v. a. Teut. *cuning* or *cyning*.

KING'DOM, n. s. Sovereign dignity.

KING'LY, adj. { the primitive tongue it

KING'LIKE, adj. } signifies stout or valiant;

KING'SHIP, n. s. } the kings of most nations
being, in the beginning, chosen by the people on
account of their valor and strength.—Verstegan.
Monarch; supreme governor; used by Bacon in
the feminine: a card with the picture of a king:
king at arms, a principal officer at arms, that has
the pre-eminence of the society; of whom there
are three in number, viz. Garter, Norroy, and
Clarenceux.—Phillips. King, to supply with a
king; to make royal; to raise to royalty: kingdom,
the territories subject to a monarch; a particu-
lar class or order of beings, in the language
of naturalists; a region or tract of country:
kingly, kinglike, royal; like a monarch; noble;
august; magnificent; of or belonging to a king;
with an air of superior dignity: kingship, royalty;
monarchy.

With Arcita, in stories as men find,

The gret Emetruis the King of Inde,

Upon a stede bay, trapped in stèle,

Covered with cloth of gold diapred wele,

Came riding like the god of armes, Mars.

Chaucer. The Knightes Tale.

The great King of kings

Hath in the table of his law commanded

That thou shalt do no murder.

Shakspeare. Richard III.

True hope is swift, and flies with swallows' wings;
King it makes gods, and meaneer creatures kings.

Shakspeare.

I am far better born than is the king;

More like a king, more kingly in my thoughts.

Id.

The watery kingdom is no bar

To stop the foreign spirits; but they come,

As o'er a brook, to see fair Portia.

Id.

England is so idly kinged,

Her sceptre so fantastically borne,

That fear attends her not. *Id. Henry V.*

Sometimes am I a king;

Then treason makes me wish myself a beggar,

And so I am: then crushing penury

Persuades me, I was better when a king;

Then am I kinged again. *Id. Richard II.*

Ferdinand and Isabella, kings of Spain, recovered
the great and rich kingdom of Granada from the
Moors.

Bacon.

And on his shield kind Jonathan imparts
To his soul's friend, his robes and princely name,
And kingly throne; which mortals so adore:
And round about was writ in golden ore,
Well might he give him all, that gave him life before.

Fletcher's Purple Island.

Adam bowed low; he, kingly from his state
Inclined not. *Milton's Paradise Lost.*

A letter under his own hand was lately shewed
me by Sir William Dugdale, *king at arms. Walton.*

He was not born to live a subject life, each action
of his bearing in it majesty, such a kingly entertainment,
such a kingly magnificence, such a kingly heart
for enterprizes. *Sidney.*

Yet this place

Had been thy kingly seat, and here thy race
From all the ends of peopled earth had come

To reverence thee. *Dryden's State of Innocence.*

The animal and vegetable kingdoms are so nearly
joined, that if you take the lowest of one, and the
highest of the other, there will scarce be perceived
any difference. *Laerke.*

Thus states were formed; the name of king un-
known,

Till common interest placed the sway in one:

'Twas virtue only, or in arts or arms,

Diffusing blessings, or averting harms,

The same which in a sire the sons obeyed

A prince the father of a people made. *Pope.*

His hat, which never vailed to human pride,
Walker with reverence took, and laid aside;
Low bowed the rest, he, kingly, did but nod.

Dunciad.

The cities of Greece, when they drove out their
tyrannical kings, either chose others from a new
fainily, or abolished the kingly government, and be-
came free states. *Swift.*

Ye shepherds, monarchs, sages, hither bring
Your hearts an offering, and adore your king!

Couper. Nativity.

Ascend my son! thy father's kingdom share!
Id. Elegy.

Beset with all the thorns that line a crown,
Without investing the insulted brow,

With the all-swaying majesty of kings.

Byron. Marino Faliero.

But not a kingly one—I'll none on't; or

If ever I indulge in 't, it shall be

With kings my equals. *Id. Sardanapalus.*

KING. The Latin word *rēx*, the Scythian
reix, the Punic *resch*, the Spanish *rey*, and French
roy, come all, according to Postel, from the Hebrew
שָׁרֵךְ, *rosch*, chief, or head. Kings were
not known amongst the Israelites till the reign of
Saul, though Abimelech usurped a partial ro-
yalty over the Shechemites. See ISRAELITES.
Most of the Grecian states were governed at first
by kings, who were chosen by the people to de-
cide differences, and execute a power which was
limited by laws. They commanded armies, pre-
sided over the worship of the gods, &c. This
royalty was generally hereditary; but if the vices
of the heir to the crown were odious to the peo-
ple, or if the oracle had so commanded, he was
cut off from the succession; yet kings were sup-
posed to hold their sovereignty by the appoint-
ment of Jupiter. The ensign of majesty was the
sceptre, which was made of wood, adorned with
stud of gold, and ornamented at the top with
some figure; commonly that of an eagle, the
bird of Jove.

Rome also was governed at first by kings, who
were elected by the people, with the approbation

of the senate, and concurrence of the augurs. Their power extended to religion, the revenues, the army, and the administration of justice. The monarchy subsisted 244 years in Rome, under seven kings. See ROME. Among the Greeks, the king of Persia had anciently the appellation of the great king; the king of France has that of the most Christian king; and the king of Spain that of Catholic king. The kings of England, by the Lateran council, under pope Julius II., had the title of Christianissimus conferred on them; and that of defender of the faith was added by pope Leo X. The title of grace was first given to our kings about the time of Henry IV., that of majesty first to Henry VIII., before which time our kings were called grace, highness, &c.—In all public instruments and letters, the king styles himself nos, ‘ we;’ though, till the time of King John, he spoke in the singular number.

In great Britain the *power* of the king is subject to great limitations: but they are the limitations of wisdom, and the sources of dignity; being so far from diminishing his honor, that they add a particular glory to his crown: for, while other kings are absolute monarchs over innumerable multitudes of slaves, the king of Britain has the distinguished glory of governing a free people, the least of whom is protected by the laws; he has great prerogatives, and a boundless power in doing good; he is at the same time only restrained from acting inconsistently with his own happiness, and that of his people. To understand the royal rights and authority in Britain, we may here briefly consider the *duties* of the king. By the British constitution there are certain duties incumbent on the monarch; in consideration of which, his dignity and prerogative are established by the laws of the land: it being a maxim in the law, that protection and subjection are reciprocal. And these reciprocal duties are what Blackstone apprehends were meant by the convention in 1688, when they declared that king James had broken the original contract between king and people. But, however, as the terms of that original contract were in some measure disputed, being alleged to exist principally in theory and to be only deducible by reason and the rules of natural law, in which deduction different understandings might very considerably differ; it was, after the Revolution, judged proper to declare these duties expressly, and to reduce that contract to a plain certainty. So that, whatever doubts might be formerly raised by weak and scrupulous minds about the existence of such an original contract, they must now entirely cease; especially with regard to every prince who has reigned since the year 1688. The principal duty of the king is, *To govern his people according to law. Nec regibus infinita aut libera potestas.* And this is not only consonant to the principles of nature, of liberty, of reason, and of society; but has always been esteemed an express part of the common law of England, even when prerogative was at the highest. ‘The king (says Bracton, who wrote under Henry III!), ought not to be subject to man; but to God, and to the law: for the law maketh the king; for he is not truly king, where will and pleasure rule, and not the law.’ And Fortescue lays it down as a principle, that ‘the

king of England must rule his people according to the decrees of the laws thereof; insomuch, that he is bound by oath at his coronation to the observance and keeping of his own laws.’ But, to obviate all doubts, it is expressly declared by statute 12 & 13 W. III. c. 2, ‘that the laws of England are the birthright of the people thereof; and all the kings and queens who shall ascend the throne of this realm, ought to administer the government of the same according to the said laws, and all their officers and ministers ought to serve them respectively, according to the same; and therefore, all the other laws and statutes of this realm, for securing the established religion and the rights and liberties of the people thereof, and all other laws and statutes of the same now in force, are by his majesty, by and with the advice and consent of the lords spiritual and temporal, and commons, and by authority of the same, ratified and confirmed accordingly.’ The terms of the original contract between the king and people are now therefore couched in the coronation oath, which, by the stat. 1 W. & M. c. 6, is to be administered to every king and queen who shall succeed to the imperial crown of these realms, by one of the archbishops or bishops of the realm, in the presence of all the people; who on their parts do reciprocally take the oath of allegiance.

It may not here be improper to take a short comparative review of the power of the executive magistrate, or prerogative of the crown as it stood in former days, and as it stands at present. And we cannot but observe, that most of the laws for ascertaining, limiting, and restraining this prerogative, have been made within little more than 150 years; or from the petition of right in 3 Car. I. to the present time. So that the powers of the crown are to all appearance greatly curtailed and diminished since the reign of king James I., particularly by the abolition of the star-chamber and high commission courts, in the reign of Charles I., and by the disclaiming of martial law, and the power of levying taxes on the subject, by the same prince; by the disuse of forest laws for a century past: and by the many excellent provisions enacted under Charles II.; especially the abolition of military tenures, purveyance, and pre-emption; the habeas corpus act; and the act to prevent the discontinuance of parliaments for above three years; and, since the revolution, by the strong and emphatical words in which our liberties are asserted in the bill of rights, and act of settlement; by the act of triennial, since turned into septennial elections; by the exclusion of certain officers from the house of commons; by rendering the seats of the judges permanent, and their salaries independent; and by restraining the king’s pardon from obstructing parliamentary impeachments. Besides all this, if we consider how the crown is impoverished and stripped of all its ancient revenues, so that it greatly depends on the liberality of parliament for its necessary support and maintenance, we may perhaps be led to think that the balance is inclined pretty strongly to the popular scale, and that the executive magistrate has neither independence nor power enough left, to form that check upon the lords and commons which the founders of our constitution intended. But, on the other hand, it is to

be considered that every prince, in the first parliament after his accession, has by long usage a truly royal revenue settled upon him for life; and has never any occasion to apply further to parliament for supplies, but upon some public necessity. This restores to him that constitutional independence, which at his first accession seems to be wanting. And then, with regard to power, we may find perhaps that the hands of government are sufficiently strengthened; and that a British monarch is now in no danger of being overborne by either the nobility or the people.

The instruments of power are not perhaps so public and avowed as they formerly were, and therefore are the less liable to jealous and inviolous reflections; but they are not the weaker upon that account. In short, our national debt and taxes (besides other inconveniences) have in their natural consequences, thrown such a weight of power into the executive scale of government, as our patriotic ancestors, who gloriously struggled for the abolition of the then formidable parts of the prerogative, would have been very unwilling to confer. Witness the commissioners, and the multitude of dependents on the customs, in every port of the kingdom; the commissioners of excise, and their numerous subalterns, in every inland district; the postmasters and their servants, planted in every town, and upon every public road; the commissioners of the stamps, and their distributors, which are fully as scattered and fully as numerous: the surveyors of houses and windows; the receivers of the land tax; and the commissioners of hackney-coaches; all which are either immediately or immediately appointed by the crown, and removable at pleasure without any reason assigned: these must give that power, on which they depend for subsistence, an influence amazingly extensive. To this may be added the frequent opportunities of conferring particular obligations, by preference in loans, and other money transactions, which will greatly increase this influence; and that over those persons whose attachment, on account of their wealth, is frequently the most desirable. All this is the natural, though perhaps the unforeseen consequence of erecting funds of credit, and, to support them, establishing perpetual taxes; the whole of which is entirely new since the restoration in 1660; and by far the greatest part since the revolution in 1688. The same may be said with regard to the officers in our numerous army, and the places which the army has created. All which put together give the executive power so effective an influence with respect to the people as will amply make amends for the loss of external prerogative. But see our article *LAW*.

KING AT ARMS, an officer of great antiquity, and anciently of great authority, whose business is to direct the heralds, preside at their chapters, and have the jurisdiction of the armoury. In England there are three kings of arms, viz. GARTER, CLARENCEUX, and NORROY. See these articles. These two last are also called provincial heralds, as they divide the kingdom between them into provinces. They have power to visit noblemen's families, to set down their pedigrees, distinguish their arms, appoint persons their arms, and with

Garter to direct the other heralds. Anciently the kings at arms were created and crowned by the kings of England themselves; but of late the earl marshal has a special commission at every creation to personate the king. To these may be added Lyon, king at arms for Scotland, who is the second king at arms for Great Britain; and also Ulster, king at arms for Ireland. The regalia of Lyon are, a crown of gold, with a crimson velvet cap, a gold tassel, and an ermine lining; a velvet robe reaching to his feet, with the arms of the kingdom embroidered thereon before and behind in the proper tinctures; a triple row of gold chain round his neck, with an oval gold medal pendant thereto, on one side of which is the royal bearing, and on the other St. Andrew with his cross enamelled in proper colors, and a baton of gold enamelled green, powdered with the badges of the kingdom. Formerly Scotland was divided into two provinces, the one on the north; and the other on the south side of the Forth; and these provinces were under the management of two deputies appointed by the lord Lyon, to superintend the execution of all the business of his office. Before the revolution, the lord Lyon at his admission into office, was solemnly crowned by the sovereign or his commissioner, in presence of the nobility, the officers of state, &c., after a suitable sermon preached in the royal chapel; and his crown was of the same form with the imperial crown of the kingdom. On solemn occasions he wears the regalia above described; at all other times he wears the oval gold medal or badge on his breast, suspended by a broad green riband. He has the absolute disposal of all the offices in his own court, and of the heralds and pursuivant's places. The messengers at arms throughout Scotland are also created by him, and are amenable to his jurisdiction.

Ulster was substituted, as some say, in the room of Ireland king of arms, by Edward VI.; though the king himself in his journal takes notice of it as a new institution. 'There was a king of arms made for Ireland,' says he, 'whose name was Ulster, and his province was all Ireland: and he was the fourth king at arms, and the first herald of Ireland. The patent passed under the great seal of England, with an ample testimony of the necessity and dignity of the office. Whether Ulster was substituted in the room of Ireland king of arms, or else was newly erected, such an officer of the crown of England, on which Ireland is dependent, still continues, and may execute his heraldic order in this kingdom, though out of his province, in as extensive a manner as either Clarenceux or Norroy may do without the limits of either of their marches.'

KING (Dr. John), a learned English bishop in the sixteenth century, born at Wornall in 1559, educated at Westminster, and at Christ Church, Oxford. He was appointed chaplain to queen Elizabeth. In 1605 he was made dean of Christ Church, and was for several years vice-chancellor of Oxford. In 1611 he was appointed bishop of London. Besides his Lectures upon Jonah, delivered at York, he published several sermons. King James I. used to style him the king of preachers; and lord chief-justice Coke often de-

clared, that he was the best speaker in the star-chamber in his time.

KING (John Glen), D.D., an English divine, chaplain to the factory at Petersburg, was born in Norfolk, and educated at Caius College, Cambridge, where he graduated. He was appointed medalist to the empress Catharine II. He wrote, 1. The Rites and Ceremonies of the Greek church; with its Doctrine, Worship, and Discipline: 2. Observations on the Climate of Russia, and the Northern Countries, with a View of the Flying Mountains near Petersburg: 3. Observations on the Barberini Vase. He died in 1787.

KING (Sir Peter), lord high chancellor of England, and nephew of the great John Locke, was born in Exeter, in 1669. His father was a grocer in that city, and intended him for the same business; but, his passion for learning soon appearing, he was allowed to follow his inclination. In this he was also encouraged by his uncle, who left him half of his valuable library. By his advice he went to Leyden, and on his return studied the law at the Inner Temple. In 1691 he published anonymously, An Enquiry into the Constitution, Discipline, Unity, and Worship of the Primitive Church within the first 300 years after Christ. London, 1691; 8vo. He afterwards published a second part of this work; which gave rise to a controversy with Mr. Elys. In 1669 he was elected M.P. for Beer-Alston; which he represented in seven successive parliaments. In 1702 he published his History of the Apostles' Creed, a work of great merit and learning. In 1708 he was chosen recorder of London, and knighted. In 1709 he was appointed one of the managers of Dr. Sacheverel's trial. In 1714, on the accession of king George I., he was made lord chief-justice of the common pleas: in 1725 created a peer, by the title of lord King, baron Ockham, &c., and on the 1st of June appointed lord-chancellor. He resigned the seals in 1733, and died in 1734, leaving four sons and two daughters.

KING (William), a factious English writer in the beginning of the eighteenth century, who was allied to the noble families of Clarendon and Rochester. He was elected student of Christ Church from Westminster school, in 1681, when aged eighteen. He afterwards studied the civil law, and took the degree of J.C.D. He soon acquired a considerable reputation, and obtained great practice. He attended the earl of Pembroke, lord lieutenant of Ireland, into that kingdom, where he was appointed judge advocate, sole commissioner of the prizes, keeper of the records, and vicar-general to the lord primate of Ireland. He at length, however, returned to England, and retired to his student's place at Christ Church. He died December 25th, 1712. His principal writings are, 1. Animadversions on a Pretended Account of Denmark, written by Mr. Molesworth, afterwards lord Molesworth. This work procured Dr. King the place of secretary to princess Anne of Denmark. 2. Dialogues of the Dead. 3. The Art of Love, in imitation of Ovid *De Arte Amandi*. 4. A volume of poems. 5. Useful Transactions. 6. An Historical Account of the Heathen Gods and heroes. 7.

Several translations. Dr. King hated the business of an advocate; but proved an excellent judge, when appointed one of the court of delegates.

KING (William), D.D., archbishop of Dublin in the eighteenth century, was descended from an ancient family in the north of Scotland, but born in the county of Antrim in Ireland. In 1674 he entered into orders. In 1679 he was promoted by Dr. Parker, archbishop of Dublin, to the chancellorship of St. Patrick. In 1687 Peter Manby, dean of Londonderry, having published at London, in 4to., a pamphlet entitled Considerations which obliged Peter Manby to embrace the Catholic Religion, Dr. King immediately wrote an answer. Mr. Manby published a reply, entitled A Reformed Catechism, &c., in Reply to Mr. King's Answer, &c. Dr. King rejoined in A Vindication of the Answer. Mr. Manby dropped the controversy; but dispersed a loose sheet, entitled A Letter to a Friend, showing the Vanity of this Opinion, that every man's Sense and Reason are to Guide Him in Matters of Faith. This Dr. King refuted in A Vindication of the Christian Religion and Reformation, &c. In 1689 he was twice confined in the tower by order of king James II, and the same year commenced D.D. In 1690, upon king James's retreat to France after the battle of the Boyne, he was advanced to the see of Derry. In 1692 he published at London, in 4to., The State of the Protestants of Ireland under the late King James's Government, &c. He had by him, at his death, attested vouchers of every particular fact alleged in this book, which are now in the hands of his relations. In 1693, finding the great number of Protestant dissenters in his diocese of Derry increased by a vast addition of colonies from Scotland, Dr. King, to persuade them to conformity to the established church, published A Discourse Concerning the Inventions of Men in the Worship of God. Mr. Joseph Boyle, a dissenting minister, wrote an answer. Replies and rejoinders followed. In 1702 he published at Dublin, in 4to., his celebrated Treatise *De Origine Malorum*. Edmund Law, M.A. fellow of Christ's College, Cambridge, published a translation of this, with very valuable notes, in 4to. In the second edition he has inserted a collection of the author's papers on this subject, which he had received from his relations. In this excellent treatise Dr. King proves, that there is more moral good in the earth than moral evil. His sermon, preached at Dublin in 1709, was published under the title of Divine Predestination and Foreknowledge Consistent with the Freedom of Man's Will. This was attacked by Anthony Collins, esq. in a pamphlet entitled A Vindication of the Divine Attributes, &c. He published likewise, A Discourse concerning the Consecration of Churches; showing what is meant by dedicating them, with the grounds of that office. He died in 1720. Dr. King was witty as well as profound. Being disappointed in his expectations of the primacy of Ireland on the death of archbishop Lindsey, and hearing it was assigned as a reason for passing him over, that he was too far advanced in years, he received Dr. Boulter, the new primate, at his first visit, with

out the compliment of rising to salute him, apologising for the incivility by saying, ‘ My lord, I am sure your grace will forgive me, because you know I am too old to rise.’

KING (William), LL.D., principal of St. Mary’s Hall Oxford, was born at Stepney in Middlesex in 1685. He graduated in 1715, was made secretary to the duke of Ormond, and earl of Arran, as chancellors of the university; and principal, on the death of Dr. Hudson, in 1719. When he stood candidate for M.P. for the university, he resigned his office of secretary, but enjoyed his other preferment to his death. Dr. Clark, who opposed him, carried the election; and after this disappointment, he, in 1727, went over to Ireland, where he wrote an epic poem, called *The Toast*, a political satire, printed and given away to his friends, but never sold. On the dedication of Dr. Radcliff’s library, in 1719, he delivered a Latin oration in the theatre at Oxford, which was received with the highest acclamations; but when printed was attacked in several pamphlets. Again, at the contested election in Oxfordshire, 1755, his attachment to the Tory interest drew on him the resentment of the Whigs, and he was libelled in newspapers and pamphlets, against which he defended himself in an apology, and warmly retaliated on his adversaries. He wrote several other pieces, and died in 1762. He was a polite scholar, an excellent orator, an elegant and easy writer, and much esteemed for his learning and wit.

KING AND QUEEN COUNTY, a county of the east part of Virginia, bounded N. N. E. by Essex and Middlesex counties, east by Gloucester county, S. S. W. by King William county, and west by Caroline county. Distance from Washington 140 miles. Chief town, Dunkirk.

KING GEORGE, a county of the north-east part of Virginia, bounded north-west and north by the Potomac, east by Westmoreland county, south by the Rappahannock, and west by Stafford county. Distance from Washington west eighty miles.

KING GEORGE’S ISLANDS, two islands of the South Pacific Ocean, discovered by Byron, in 1765, and visited by captain Cook in 1773. On commodore Byron’s attempting to land, he was opposed by the natives, and a shot or two being fired, one man was killed. The rest fled; but two canoes were brought off to the ship, of curious workmanship. One was thirty-two feet long; they consisted of well-wrought planks sewed together, and over every seam there was a strip of tortoise-shell, cleverly fastened. A mast was hoisted in each of them, and a matting sail. The houses were low hovels, thatched with cocoanut branches. The cocoanut tree furnished the natives with food, sails, cordage, timber, and vessels to hold water. The shore appeared to be covered with coral, and pearl oysters. Byron got several boat-loads of cocoanuts, a great quantity of survy-grass, and excellent fresh water here, but the last is scarce. Long. 149° 2' W., lat. 14° 35' S.

KING GEORGE’S SOUND, a name given by captain Cook to NOOTKA SOUND; which see.

KING GEORGE THE THIRD’S ARCHIPELAGO, an extensive group of islands, so called by Van-

cover, on the west coast of North America, extending from north to south about 130 miles. It is at its northern part about forty-five miles broad; but, gradually diminishes to little more than one mile. On the eastern shore of this archipelago Vancouver’s party discovered some square grounds in a good state of cultivation, and producing a plant not unlike tobacco. Long. 223° 45' to 225° 37' 30" E., lat. 56° 10' to 53° 18' N.

KING GEORGE THE THIRD’S ISLAND, or OXHEITE. See ORFARIE.

KING GEORGE THE THIRD’S SOUND, a large bay on the south coast of New Holland, divided into two harbours, Princess Royal Harbour on the west, and Oyster Harbour on the east, which afford many conveniences for shipping. The entrance is between two distant points, Mount Gardner and Bald Head; and several islands are included within its limits. See HOLLAND, NEW.

KING-AN-FOU, or KYGANTAN, a city of China of the first rank, in the province of Kiang-see, and on the river Kankien, the navigation of which is rather dangerous here. The embassy under lord Amherst observed several new buildings going on, and extensive cotton and linen manufactures here. The gardens under the walls occupy a large space.

KING-APPLE, n. s. A kind of apple.

The *kingapple* is preferred before the jennetting, Mortimer.

KING-CRAFT, n. s. King and craft. The art of governing. A word commonly used by king James.

KING-CUP, n. s. King and cup. The name is properly, according to Gerard, King Cob. The flower of the crowfoot; the plant itself.

Strow me the gronde with daffadown-dilhes,
And cowslips, and *kingcups*, and loved bilbies.
Sprayer. Sheepheard’s Calend.

June is drawn in a mantle of dark grass green,
and upon his head a garland of bents, *kingcups*, and maidenhair.
Peacocke.

Fair is the *kingcup* that in meadow blows,
Fair is the daisy that beside her grows. *Gay.*

KINGFISHER, n. s. Haleyon. A species of bird.

When dew refreshing on the pasture fields
The moon bestows, *kingfishers* play on shore. *May’s Virgil.*

Bitterns, herons, sea-gulls, *kingfishers*, and water-rats, are great enemies to fish.

Mortimer’s Husband. g.

KING-FISHER. See ALCEDO.

KINGS, BOOKS OF, two canonical books of the Old Testament, containing the history of the kings of Israel and Judah from the beginning of the reign of Solomon down to the Babylonish captivity, for the space of near 600 years. It is generally supposed, and seems very probable, that these books were composed by Ezra, who extracted them out of the public records.

KING’S BENCH. See BENCH.

KINGSBURY, a post town of Washington county, New York, on the east side of the Hudson; fifty-five miles north of Albany, Washington 432. Population 2272. It contains two Baptist meeting-houses.

KING’S COUNTY, a county of Ireland, in the 2 A 2

province of Leinster, so named from king Philip of Spain, husband to queen Mary I. It is bounded on the north by West Meath; on the east by Kildare; on the south by Tipperary and Queen's County, from which it is divided by the Barrow; and by part of Tipperary and Galway on the west, from which it is separated by the Shannon. It is a fine fruitful country, containing 257,510 Irish plantation acres, fifty-six parishes, eleven baronies, and two boroughs. It is about thirty-eight miles long, and from seventeen to thirty broad. The chief town is Philips-town.

KING'S COUNTY, a fertile and well cultivated county of New York, on the west end of Long Island, bounded on the east by Queen's County, north by New York county, west by Hudson's River and the Ocean, and south by the Atlantic. It is ten miles long and eight broad; is divided into six townships; and contained 3063 citizens, and 1432 slaves, in 1795.

KING'S COUNTY, a county of Nova Scotia, comprehending the lands on the south-west and south sides of the basin of Minas. It has considerable settlements on the Habitant, the Cannaïd, and the Cornwallis, which are navigable for about five miles up.

KING'S-EVIL, King and evil. A serulous distemper, in which the glands are ulcerated, commonly believed to be cured by the touch of a king.

Sore eyes are frequently a species of the *king'sevil*, and take their beginning from vicious humours inflaming the tunica adnata. *Wisdom's Surgery.*

KING'S EVIL. See MEDICINE.

KING'SHIP, n.s. From king. Royalty; monarchy.

They designed and proposed to me the new-modelling of sovereignty and *kingship*, without any reality of power, or without any necessity of subjection and obedience. *King Charles.*

We know how successful the late usurper was, while his army believed him real in his zeal against *kingship*; but when they found out the imposture, upon his aspiring to the same himself, he was presently deserted and opposed by them, and never able to crown his usurped greatness with the addition of that title which he passionately thirsted after. *South.*

KING'S ISLAND, an island at the west-end of Bass' Straits, about thirty miles long from north to south, and twelve or eleven broad. The highest part is 400 or 500 feet above the level of the sea. It is inhabited only by the kangaroo and wombat; but various species of seals are found on its shores. There is a lake of fresh water here. The hills are covered with wood. The north end of the island is in $39^{\circ} 36' S.$ lat., and $143^{\circ} 54' E.$ long. Distance from the main land forty-eight miles.

KING'S ISLAND, a small island in Behring's Straits, so called by captain Cook.

KING'S ISLAND, an island near the north-west coast of North America, so named by Vancouver. It is about thirty miles in length, and little more than six in breadth, being separated from the continental shore of New Albion, by Banke's canal, and by Fisher's canal from the Princess Royal Islands. Long. $232^{\circ} 9'$ to $232^{\circ} 43' W.$, lat. $51^{\circ} 56'$ to $52^{\circ} 26' N.$

KING'SPEAR, n.s. *Asphodelus.* A plant.

KINGSTON (Elizabeth, duchess of), born in 1720, was the daughter of colonel Chudleigh, governor of Chelsea College. From youth to age she was celebrated for intrigue, and owes her place in history to her remarkable trial for bigamy. She was at first maid of honor to the princess of Wales, the mother of George III.; in which situation she received a proposal of marriage from the duke of Hamilton: but being informed, though falsely, that he had forgotten her while on the continent, she gave her hand privately to captain Hervey, R. N., afterwards earl of Bristol. At about this period of her life, attending a masquerade where George II. came incog., his majesty laid his hand on her exposed bosom, and exclaimed, 'A soft place, Eve.' To which, regardless of her rank, she is said to have replied, laying her hand on the king's head, 'A softer place, your majesty.' Her marriage (August 4th, 1744) had been kept a secret, and her subsequent refusal of advantageous proposals of marriage having offended her mother, she now went abroad with a major in the army. They proceeded to Berlin, where they parted. Here she is said to have been well received by the king of Prussia, and on her return to England she resumed her situation at the British court. Desirous of terminating her union with captain Hervey, she adopted at this time the expedient of tearing the leaf out of the parish register, in which their marriage was entered; but, repenting of this step on his succeeding to the peerage, she contrived to have the leaf replaced. Through all these scenes she was only known to the public as Miss Chudleigh. Not long after, the duke of Kingston made her an offer, on which she endeavored to procure a divorce from lord Bristol. This he at first opposed, but at length assented to it, and the wished-for separation was arranged. On the 8th of March, 1769, she was married to Evelyn Pierrepont, duke of Kingston, on whose death in 1773 she found herself left mistress of a large fortune, under the condition of her not marrying again. But the heirs of the duke commenced a suit against her for bigamy, when she was tried before the house of lords, and found guilty: on her pleading the privilege of peerage, however, punishment of burning in the hand was remitted, and she was discharged on paying the fees. The remainder of her life was spent abroad, and she died at a seat near Fontainebleau in France, August 28th, 1788.

KINGSTON, a principal town of Jamaica, is seated on the north side of the bay of Port-Royal. It was founded in 1693, when the repeated desolations by earthquakes and fires had driven the inhabitants from Port Royal. It extends from a mile to a mile and a half, from north to south, and about as much from east to west on the harbour. According to the original plan it was to be built in the form of a parallelogram, one mile in length by half a mile in breadth; but it has of late years been much extended beyond this limit. The principal church is a large and elegant edifice, with four aisles, and a fine organ. There is also a Presbyterian church, a theatre, a free-school established

in 1729, a poor-house, and a public hospital here. The market is well supplied with poultry, butcher's meat, fish, fruits, and European vegetables. There are also great quantities of the finest pine apples and tropical fruits. This town enjoys the benefit of the sea breezes which blow regularly the greatest part of the year, and temper the heat of the climate; but the acclivity on which the town is situated has the inconvenience of admitting, during the wet season, a free passage to torrents of rain, which often render the streets impassable for wheel-carriages. It is governed by a mayor, twelve aldermen, and twelve common councilmen, a recorder, two solicitors, and a treasurer, and returns three members to the house of assembly. The thermometer ranges between 96° and 76° . Ten miles from Spanish Town.

KINGSTON, the capital of the island of St. Vincent's in the West Indies, is situated at the head of a bay of this name, on the south-western shore of the island, in St. George's parish. Long. $81^{\circ} 0' W.$, lat. $13^{\circ} 6' N.$

KINGSTON, a considerable town of Upper Canada, is seated on the north side of the river St. Lawrence, on the eastern extremity of Lake Ontario. It was founded in 1784, on the ground upon which formerly stood Fort Frontenac; it now presents a front of nearly three quarters of a mile, extending in depth about 600 yards. The streets run regularly at right angles with each other, but are not paved: the number of the houses may be estimated at about 450; some of them of stone, but the greater number of wood. The public buildings are a government and court-house, a Protestant and Catholic church, market-house, jail, and hospital, besides the garrison, block-houses, and government magazines, wharfs, and spacious warehouses; in fact, this is now the main entrepôt between Montreal and the settlements along the lakes. The harbour is commodious and well sheltered for ships not requiring more than three fathoms water, and has good anchorage close to the north-eastern extremity of the town. The entrance is defended by a battery on Mississaga Point, and another on Point Frederick. Kingston also possesses one of the best harbours on lake Ontario, and it is a very important naval arsenal of Great Britain in this quarter. 190 miles north-west of Montreal. Long. $76^{\circ} 40' W.$, lat. $44^{\circ} 8' N.$.

KINGSTON, a township of the United States, in Addison county, Vermont. Population 324. There are numerous small towns of this name in the United States.

KINGSTON UPON HULL. See HULL.

KINGSTON UPON THAMES, a corporate town in Surry, with a market on Saturday. A national council was held here in 838, at which Egbert, the first king of all England, with his son Ethelwolf, were present; and several of the Saxon monarchs were crowned here; and close to the north side of the church is a large stone, on which, tradition says, they sat during the ceremony. On the same side was formerly a chapel, adorned with the figures of different kings who had been crowned here. By the inscriptions over these figures it appeared that some of them have been crowned in the market-place, and

others in the chapel.—This town sent members to parliament in the reigns of Edward II. and III.; but ceased afterward, in consequence of a petition from the corporation praying to be released from the burden! The Lent assizes are held at this place. Here is a free-school, founded by queen Elizabeth, the school-room of which was an ancient chapel to the hospital of St. Mary Magdalen. An alms-house for twelve poor persons was founded here by William Cleve, esq. alderman of London, which was endowed with lands, the present annual income of which is £120. The wooden bridge over the Thames was the most ancient on that river except London Bridge; it has been succeeded by a modern one at an expense of £40,000. It is ten miles southwest of London.

KING WILLIAM, a county of Virginia, bounded N. N. E. by King and Queen county, S. S. W. by York River, and west by Caroline county.

KING-YUEN-FOU, a city of China, in Quangsee, of the first rank. It is situated on a large river, surrounded by mountains, and inhabited by a very unpolished race. Gold is found in the district.

KINGSTONE, n. s. *Squatina*. A fish.

KINHOA-FOU, a Chinese city of the first rank, in Tche-kiang. It stands nearly in the centre of the province, on the banks of a considerable river, and was formerly of great extent. On the invasion of the Tartars it was almost destroyed, and has never been rebuilt on the same scale. The country round abounds with rice and wine; and a trade is carried on to all parts of the empire in dried plums and hams Long. $119^{\circ} 16' E.$, lat. $29^{\circ} 16' N.$

KINIC ACID, in chemistry, acidum kinicum, from kini, the French name of cinchona, from which it is obtained. Let a watery extract from hot infusions of the bark in powder be made. Alcohol removes the resinous part of this extract, and leaves a viscid residue, of a brown color, which has hardly any bitter taste, and which consists of kinate of lime and a mucilaginous matter. This residue is dissolved in water, the liquor is filtered and left to spontaneous evaporation in a warm place. It becomes thick like syrup, and then deposits by degrees crystalline plates, sometimes hexagonal, sometimes rhomboidal, sometimes square, and always colored slightly of a reddish-brown. These plates of kinate of lime must be purified by a second crystallisation. They are then dissolved in ten or twelve times their weight of water, and very dilute aqueous oxalic acid is poured into the solution, till no more precipitate is formed. By filtration the oxalate of lime is separated, and the kinic acid, being concentrated by spontaneous evaporation, yields regular crystals. It is decomposed by heat. While it forms a soluble salt with lime, it does not precipitate lead or silver from their solutions. These are characters sufficiently distinctive. The kinates are scarcely known; that of lime constitutes seven per cent. of cinchona.' We are indebted for the discovery to a Mr. Deschamps, apothecary at Lyons, who described the salt in the 48th volume of the *Annales de Chimie*. He obtained it by macerating the bark in cold water; afterwards evaporating

the solution, and leaving it to crystallise. The crystals produced were equal to about seven per cent. of the bark employed. He did not prosecute his enquiry further; and it was not until some experiments which were afterwards undertaken upon it by Vauquelin, that the salt in question was found to contain a new acid.

KINO, in chemistry, is an astringent black resinous substance, commonly called a gun, but very improperly; for, as Vauquelin has remarked, it has neither the physical nor chemical properties characteristic of those vegetable products. According to Dr. Duncan, the kino now known in the shops is principally imported from Jamaica; and is an extract from the cocoloba weifera, or sea-side grape. It is nearly wholly soluble in hot water and hot alcohol, and chiefly consists of tannin in a particular state; which has the property of precipitating the salts of iron of a green color, instead of black. With gelatine it forms a rose colored coagulum. It is in appearance very like the resin called sanguis draconis; much redder, more firm, resinous, and astringent than catechu. It is now in common use, and is one of the most efficacious vegetable astringents, or styptics, in the *materia medica*. Its dose is from twenty to thirty grams.

KINROSS, a populous town in a parish of the same name, the capital of the county Kinross, containing 2917 inhabitants in 1831. It is seated on the west side of Lochleven. The manufactures are cutlery ware, leather, shoes, &c. It was formerly a very mean place, but many good houses have been lately built, and the streets much improved: Sile-sins and coarse cottons are now a principal manufacture. It is twenty-four miles north of Edinburgh, and fifteen south of Perth.

KINROSS, or KINROSS-SHIRE, a small county of Scotland, bounded on the north-east, east, and south, by that of Fife; and on the west and north by Pershire. It is almost circular, and about thirty miles in circumference. It sends a member to parliament, conjointly with Clackmannan. It contains only four parishes, viz. Cleish, Kinross, Orwell, and Portmoak. The middle part is occupied by that beautiful expanse of water Loch-Leven, and from its banks the ground rises towards the north, with a gentle declivity; but, towards the south, the rise is more abrupt and rugged. Agriculture is well attended to, and the county is in a high state of improvement, producing good crops; and on the sides of the lake are several seats. In the different districts are abundance of lime-stone and coal. Iron-stone is also met with.

KINSALE, a town of Ireland, in the county of Cork, situated at the mouth of the Bandon, 186 miles from Dublin. It is reckoned the third town in the kingdom, and inferior only to Cork in point of trade. It is neat, well built: is governed by a sovereign and a recorder, and defended by a strong fort, built by king Charles II. called Charles's Fort. On the opposite shore there are two well built villages, called Cove and Scilly. In the town and liberties are six parishes containing 6846 acres. The barracks hold twelve companies of foot. In the centre of the town is a good market-house, and a strong

built prison. During the war Kinsale was a place of much business, being frequented by rich homeward bound fleets, and ships of war. The harbour is very commodious, perfectly secure, and so large, that the English and Dutch Snyrna fleets have anchored in it at the same time. There is a dockyard for repairing ships of war, and a crane and gun wharf for landing and shipping heavy artillery. Ships may sail in or out of this harbour, keeping the middle of the channel, with the utmost safety. Within the haven on the west side lies a great shelf, which shoots far off from the land; but leaves an ample passage by the side of it, which is many fathoms deep. Lord Kinsale has the ancient privilege of keeping his hat on in the king's presence, being lineally descended from John de Courcy, earl of Ulster, who first obtained this privilege.

KINSFOLK, *n.s.* { See KIN. Persons of KINS'MAN, *n.s.* } the same family, or con-

KINS'WOMAN, *n.s.* } sanguinity.

My *kinsfolk* have failed, and my familiar friends forgotten me. *Job xix. 14.*

The jury he made to be chosen out of the nearest *kinsmen*, and their judges he made of their own fathers. *Spenser.*

Those lords, since their first grants of those lands, have bestowed them amongst their *kinsfolks*. *Spenser.*

A young noble lady, near *kinswoman* to the fair Helen, queen of Corinth, was come thither. *Sidney.*

Both fair, and both of royal blood they seemed, Whom *kinsmen* to the crown the heralds deemed. *Dryden.*

Let me stand excluded from my right,
Robbed of my *kinsman's* arms, who first appeared in
fight. *Id. Fables.*

There is a branch of the Medicis in Naples: the head of it has been owned as a *kinsman* by the great duke, and 'tis thought will succeed to his dominions. *Addison on Italy.*

Kinsman beloved, and as a son, by me!
When I behold this fruit of thy regard,
The sculptured form of my old favourite bard,
I reverence feel for him, and love for thee.
Courier. To John Johnson.

A passing beggar hath remembered me,
When with strange eyes my *kinsmen* looked on me.
Maturin. Bertram.

And now I take my leave, imploring you
In all things to rely upon my duty
As doth become your near and faithful *kinsman*,
And not less loyal citizen and subject.
Biron. Marino Faliero.

KINTYRE, or CANTYRE, from Cantierre, i.e. a headland, the south division of Argyleshire. It is a peninsula, stretching thirty-seven miles from north to south, and seven in breadth. It is mostly plain, arable, and populous; inhabited promiscuously by Highlanders and Lowlanders; the latter being invited to settle by the Argyle family in this place to cultivate the lands. It is divided by Lochfyne from Argyle Proper. There are many villages in this district, but no town of consequence, except Campbeltown. Kintyre was granted to the house of Argyle, after suppressing a rebellion of the Macdonalds of the Isles, in the beginning of the seventeenth century, and the grant was afterwards ratified by parliament. The ancient inhabitants were the Macdonalds, Maceachans, Mackays, and Macmaths. See ARGYLE.

KINZIG, a crenit of the grand duchy of Baden, established in 1810. It comprises ten bailiwicks, and extends along the Kinzig, from the Rhine on the west, to Wurtemberg on the east; comprehending the southern part of the margraviate of Baden, the tract called the Ortenau, and the lordship of Wolfach. The chief town is Offenburg. Population 118,000.

KIPLING (Thomas), D. D., was a native of Yorkshire, and educated at St. John's College; Cambridge; where he proceeded B. A. in 1768; and M. A. in 1771; bachelor of divinity in 1779; and doctor in 1784; at which time he was appointed deputy professor of divinity, under bishop Watson. In 1793 he rendered himself obnoxious by leading the prosecution of Mr. William Freud, of Jesus College, for professing Unitarianism while he held a fellowship; in consequence of which, that gentleman was expelled the university. The doctor being afterwards selected to superintend the publication of the Codex of Beza, the zealots, who were already embittered against him, attacked this work with great acrimony. He was, however, consoled for the mortifications he endured by being made dean of Peterborough. He died at Holme, in Yorkshire, in 1822. The dean's works are—1. The Elementary Parts of Dr. Smith's Complete System of Optics, 4to. 1778; Codex Theodori Beza Cantabrigiensis, Evangelia et Apostolorum Acta Complectens, Quadratis Literis Graeco-Latinis, folio, 2 vols. 1793; The Articles of the Church of England, proved not to be Calvinistic, 8vo. 1802; and an 8vo. pamphlet, entitled Certain Accusations brought lately by the Irish Papists against British and Irish Protestants examined, 1809.

KIPPING, or KIPPINGIUS (Henry), a learned German Lutheran, born at Bostock; where, after having received the degree of M. A., he was met by some soldiers who pressed him into the service. This, however, did not prevent his following his studies. One day while he was upon duty, holding his musket in one hand and Statius's *Thebaid* in the other, a Swedish counsellor, who perceived him in that attitude, came up to him, entered into discourse with him, and then taking him to his house, made him his librarian, and procured him the under-rectorship of the college of Bremen, where he died in 1678. He wrote many works in Latin; the principal of which are, 1. A Treatise on the Antiquities of the Romans. 2. Another On the Works of Creation. 3. Several Dissertations on the Old and New Testament, &c.

KIPPIS (Andrew), D. D. F. R. S., and F. S. A., an English biographer and divine, born at Nottingham, and educated under Dr. Doddridge at Northampton. He first settled as a minister at Boston, Lincolnshire, in 1746; thence removed to Dorking, Surrey, in 1750; and in 1753 to a congregation in Prince's Street, Westminster. He afterwards wrote in the *Monthly Review*, and in another periodical work called the *Library*, in 1761. In 1763 he was chosen philosophical tutor to an academy for educating dissenting ministers. In 1773 he published a *Vindication of the Protestant Dissenting Ministers*, with regard to their late application to par-

liament, which occasioned a controversy with dean Tucker. In 1777 he became editor of a new edition of the *Biographia Britannica*. Five volumes were published during his life, and the greater part of the sixth prepared before he died. In 1788 he published the *Life of Captain Cook*, in 1 vol. 4to., and a *Life of Dr. Lardner*, prefixed to his works. He also wrote the *History of Knowledge, Learning, and Taste, in Great Britain*, contained in the *New Annual Register*; with various other tracts, sermons, &c. The university of Edinburgh presented him with the degree of D. D. He died at Westminster in 1795.

KIRCHER (Athanasius), a famous philosopher and mathematician, born at Fulde in 1601. In 1618 he entered into the society of the Jesuits, and taught philosophy, mathematics, the Hebrew and Syriac languages, in the university of Wirtzburg, with great applause till 1631. He then went to France on account of the ravages committed by the *Sweedes* in Franconia, and lived some time at Avignon. He was afterwards called to Rome, where he taught mathematics in the Roman College, collected a rich cabinet of machines and antiquities, and died in 1680. His works amount to twenty-two vols. folio, eleven in 4to., and three in 8vo.; most of them are rather curious than useful; but they display great talent and deep erudition. The principal are, 1. *Praelectiones Magneticae*. 2. *Primitiae Gnomonicae Catoptricæ*. 3. *Ars magna Lucis et Umbrae*. 4. *Musurgia Universalis*. 5. *Oberliscus Pamphilii*. 6. *Oedipus Egyptianus*, 4 vols. folio. 7. *Itinerarium Extaticum*. 8. *Obeliscus Egyptianus*, in 4 vols. folio. 9. *Mundus Subterraneus*. 10. *China Illustrata*.

KIRCHER (Conrad), a learned German, who published a Greek and Hebrew Concordance of the Old Testament; with the Hebrew words arranged alphabetically, and the corresponding Greek under them; in 1602.

KIRCHMAN (John), an eminent German divine, born at Lubec in 1575. He studied in several places of Germany; in 1602 was made professor of poetry at Rostock, and in 1613 rector of the university at Lubec. He exercised this last employment with extraordinary application during the rest of his life, and died in 1643. He wrote several works; the most esteemed of which are, 1. *De Funeribus Romano-rum*. 2. *De Amulis, Liber Singularis*.

KIRIN OULA, an extensive government of Eastern Tartary, to the north of China. It lies between the sea of Japan, the northern frontier of Corea, and the River Seghalien Oula, and is upwards of 700 miles long, and 200 of medium breadth. The climate is severe, considering the latitude, so that no grain, except oats and millet, comes to perfection. It is thus very thinly peopled, containing only three towns surrounded with mud walls. The best plant produced in this country is the ginseng, called by the Manchews the Queen of Plants, and celebrated for its virtues in the cure of various diseases. The country is a favorite scene for the hunting excursions of the emperors of China. The capital of the same name is situated on the river Songarie, which falls into the Seghalien, in long. 126° 24', E., lat. 43° 48' N.

KIRJATH JEARIM, the city of the wood, a city of the Gibeonites, belonging to the tribe of Judah, nine miles from *Aelia*, in the road to Diospolis. It was also called Baala.—Joshua. The ark, after its recovery from the Philistines, stood for some time in this city. 1 Sam. viii.

KIRK, n. s. *Sax. cýnce*; Gr. *Kyptow oucog*. An old word for a church, yet retained in Scotland.

And the fest hold was in tentis,
(As to tell you mine entent is,)
In a rone in a largè plane,
Under a wode in a champaïne,
Betwixt a river and a well;
Where never had abbay, ne selle,
Yben, ne *kirke*, house, ne village,
In time of any manes age.

Chaucer's Dreame.

Home they hasten the posts to dight,
And all the *kirk* pillars ere day-light,
With hawthorn buds, and sweet eglantine.

Spenser.

What one party thought to rivet by the Scots,
that the other conteyns, despising the *kirk* government
and discipline of the Scots. *King Charles.*

Nor is it all the nation hath these spots,
There is a church as well as *kirk* of Scots.

Cleaveland.

KIRKALDY, a royal burgh of considerable importance in Fifeshire, extending more than a mile in length, and is about three miles from Kinghorn. The name is supposed to be derived from the Culdees, or Keldei, as they are called in the old charters. The town extends along the sea-shore, consisting principally of one long street, and a few lanes of small extent opening on each side of it. There are from thirty to forty large vessels belonging to this port, which trade to the Mediterranean, Baltic, West Indies, and America. The relative consequence of this burgh may be judged of from the circumstance, that in all public assessments it is rated as the sixth burgh of Scotland, and one-fortieth of the whole supplies levied from it. The principal manufactures of Kirkaldy are cottons, linens, checks, ticks, leather, cotton-spinning, &c. Kirkaldy joins with the neighbouring burghs of Dysart, Kinghorn, and Burntisland, in sending a representative to the imperial parliament.

KIRKCUDBRIGHT, a county of Scotland, which makes a considerable part of Galloway, of which the earls of Nithsdale were hereditary stewards. The face of the country exhibits the appearance of one continued heath, producing nothing but pasture for sheep and small black cattle, which are generally sold in England; yet these dusky moors are intersected with pleasant valleys, and adorned with a great number of castles belonging to private gentlemen, every house being surrounded with an agreeable plantation. It is watered by the Dee; which, taking its rise from the mountains near Carrick, runs through a tract of land about seventy miles in length, and, entering the Irish sea, forms the harbour of Kirkcudbright. Of late years, agriculture has been much improved, and manufactures of cotton and linen have been established, although it wants all the natural advantages of the neighbouring counties. There are several small lakes in this county, but Loch-Kenmure is the largest, being ten miles long: in this loch large pikes

are caught, weighing from twenty to thirty pounds and upwards.

KIRKCUDBRIGHT, a royal burgh in the above county. This place, which lies 101 miles southwest from Edinburgh, is a neat, clean, well-regulated burgh. There are twenty-eight brigs and sloops belonging to this port; and it has a harbour equal to any on that coast of Scotland. The present castle is a strong massy building, almost entire, though built in 1582. The town bears several marks of having been at one period fortified. About the middle of the town is a large and elegant court-house, built about the year 1791, for the accommodation of the courts of justice, and the public meetings of the stewardry; and in 1816 a commodious new gaol in the Gothic style was erected near the court-house. A large and elegant academy, containing a room for the public library, was also built in the same year. It never had any considerable trade or manufacture; but about the year 1792 a manufacture of cotton was established, which continues to be carried on to a small extent.

KIRKLAND (Thomas), M. D., an eminent physician, born in 1720. He was a zealous enquirer after medical science, and a successful practitioner. He was a member of the Royal Medical Society in Edinburgh, and of the Medical Society in London. He published An Enquiry into the present State of Medical Surgery, and some other valuable works. He died at Ashby de la Zouch, in Leicestershire, in 1798, aged seventy-eight.

KIRK-SESSION, the fourth and lowest ecclesiastical judiciary in Scotland. Each parish, according to its extent, is divided into several particular districts; every one of which has its own elder or deacon to oversee it. A consistory of the ministers, elders, and deacons of a parish, form a kirk-session. These meet once a week, the minister being their moderator, but without a negative voice. They regulate matters relative to public worship, elections, catechising, visitations, &c. They judge in matters of minor scandal; but in all cases an appeal lies from it to the presbytery. Kirk-sessions have likewise the care of the poor's funds.

KIRKWALL, a royal borough, the capital of the Orkneys. It is built upon an inlet of the sea, near the middle of the island of Pomona, having a very safe road and harbour for shipping. It is governed by a provost, four bailies, and a common council. It was formerly possessed by the Norwegians, who bestowed upon it the name of Crucoviaca. From king James III. of Scotland they obtained a new Charter, empowering them to elect their own magistrates yearly, to hold borough courts, arrest, imprison, make laws and ordinances for the right government of the town; to have a weekly market and three fairs. He also granted them some lands adjoining to the town, with the customs and shore-dues, the power of *pit and gallows*, and exempted them from the expense of sending commissioners to parliament. This charter was confirmed by succeeding monarchs. At present Kirkwall is the seat of justice, where the steward, sheriff, and commissary, hold their several courts of jurisdiction: here is likewise a public grammar-

school, endowed with a competent salary for the master. The town consists of one narrow street about a mile in length; the houses are chiefly covered with slate. The principal edifices are the cathedral church and the bishop's palace. The former, called St. Magnus, from Magnus king of Norway, the supposed founder of the town, is a large Gothic structure; the roof is supported by fourteen pillars on each side, and the spire is built upon four large columns. The gates are decorated with a kind of Mosaic work, of red and white stones elegantly carved and flowered. By the ruins of the king's castle or citadel, it appears to have been a strong and stately fortress. At the north end of the town there is a sort of fortification built by the English in the time of Oliver Cromwell. It is surrounded with a ditch and rampart, and mounted with cannon for the defence of the harbour.

KIRRIEMUIR, a burgh of barony, of considerable antiquity. It is about sixteen miles from Dundee, twenty-five from Perth, and sixty-four from Edinburgh. Situated in a fertile, extensive, and populous district, it is the mart to which the inhabitants of the neighbouring parishes chiefly resort. Hence no town in the county has a better weekly market; in none of its size is more trade carried on. Nine carriers go regularly to Dundee twice, often thrice a week. There are two great annual fairs here, in July and October.

KIRSTENIUS (Peter), professor of physic at Upsal, and physician extraordinary to the queen of Sweden, was born at Breslaw in 1577. He studied Greek, Latin, Hebrew, Syriac, natural philosophy, anatomy, botany, and other sciences. In order to be able to read Avicenna, he applied himself to the study of Arabic; and not only read Avicenna, but also Mesue, Rhasis, Abenzoar, Abukasis, and Averroes. He visited Spain, Italy, and England, and did not return home, till after seven years. He was chosen by the magistrate's of Breslaw to superintend their college and schools. Sickness having obliged him to resign that employment, he went with his family into Prussia. Here he obtained the friendship of chancellor Oxenstiern, whom he accompanied into Sweden; where he was made professor of physic in the University of Upsal, and physician to the queen. He died in 1640. He wrote many works; among which are, 1. Liber secundus Canonis Avicenna, typis Arabice, ex MSS. editus, et ad verbum in Latinum translatius, in folio. 2. De vero usu et abuso Medicinae. 3. Grammatica Arabica, folio. 4. Vita quatuor Evangelistarum, ex antiquissimo codice MS. Arabico crutae, in folio. 5. Notæ in Evangelium S. Matthæi, ex collatioque textuum Arabicorum, Syriacorum, Ægyptiacorum, Græcorum, et Latinorum, in folio, &c.

KIRTHIPORE, a town of Hindostan, in the province of Nepaul, and district of Patn. It was formerly the capital of an independent principality, but was taken by the rajah of Nepaul in the year 1768, who, for the resistance they made, most inhumanly ordered the noses of all the inhabitants to be cut off. Long. $85^{\circ} 37' E.$, lat. $27^{\circ} 30' N.$

KIRTEL, *n. s.* Sax. *cynfel*. An upper garment; a gown.

Yclad he was ful smal and proprely,
All in a *kirtel* of light waget,
Full faire and thicke ben the pointes set.

Chaucer. The Miller's Tale.

And in *kirtel* of greene saye,
The greene is for maydens meet.

All in a *kirtle* of discoloured say

He clothed was. *Faerie Queene.*

What stuff wilt thou have a *kirtle* of? Thou shalt have a cap to-morrow. *Shakespeare. Henry IV.*

Thy gowns, thy shoes, thy beds of roses,

Thy cap, thy *kirtle*, and thy posies,
Soon break, soon wither, soon forgotten,
In folly ripe, in reason rotten. *Raleigh.*

KIRWAN (Walter Blake), an Irish divine, and celebrated preacher, was born at Galway about 1754. He was educated in the English Catholic college at St. Omer's, and next at Louvain, where he entered into priest's orders, and became professor of philosophy. In 1778 he was appointed chaplain to the Neapolitan embassy in London; but in 1787 conformed to the established church in Dublin, where his popularity as a preacher was great to an unparalleled degree. In 1788 the governors of the general daily schools of several parishes in Dublin entered into a resolution, 'That from the effects produced by the sermons of the Rev. Walter Blake Kirwan, from the pulpit, his officiating in this metropolis was considered a peculiar national advantage, and that vestries should be called to consider the most effectual method to secure to the city an instrument, under providence, of so much public benefit.' He was presented this year to a prebend in the cathedral of Dublin, and the living of St. Nicholas; but resigned the former in 1800, on being promoted to the deanship of Killala. He died in 1805. A volume of his sermons has been printed, with an account of his life.

KIRWAN (Richard), a distinguished modern geologist, was a native of the county of Galway in Ireland, and educated in the University of Dublin, where he took the degree of LL.D. He devoted himself with great ardor to chemical and mineralogical researches, and became a member of the Royal Irish Academy, and fellow of the Royal Society. He published in the Philosophical Transactions for 1781, 1782, and 1783, Experiments and Observations on the Specific Gravities and Attractive Powers of various Saline Substances; which subject he farther prosecuted in the Transactions for 1785. His Elements of Mineralogy, 2 vols. 8vo., appeared in 1784, and were translated into German by Crell. In 1787 he published an Essay on Phlogiston and the constitution of Acids. This production was translated into French by the advocates for the anti-phlogistic hypothesis, and published with animadversions on the rival system, to which Dr. Kirwan became a convert. He was the author, besides the foregoing works, of An Estimate of the Temperature of different Latitudes, 1787, 8vo.; a Treatise on the Analysis of Mineral Waters, 8vo.; and another on Logic, 2 vols. 8vo., &c. He founded at Dublin an association for the purpose of cultivating mineralogy; and,

as a geologist, distinguished himself by advocating what has been called the Neptunian theory of the earth, in opposition to that of Dr. Hutton. His death took place in 1812.

KISHME, or KISMIS, or Jezira Derauz, (Long Island), the largest island in the Persian Gulf, is about ten miles from Ormus, and runs sixty miles parallel with the Persian shore. It is no where more than twelve miles broad. Formerly considered the granary of Ormus, it had 300 villages upon it, we are told, but it is now much declined. The soil is well adapted to wheat; and the sheep reared upon it are remarkably fine. It is under the rule of an independent Arab chief, who pays tribute to the Imam of Muscat. The town of Kishme, on the eastern side of the island, is defended by a wall and fort, and has a roadstead in which ships may ride securely during the westerly winds. The channel between Kishme and the main land varies from three to eight miles wide. Long. 56° 50' E., lat. 26° 57' 30" N.

KISHTAC, a large island in the North Pacific Ocean, in long. 152° 30' to 154° 50' W., lat. 57° to 58° 40' N. It is about 100 miles in length, and from thirty to fifty in breadth. Also an island on the north-west coast of North America, eastward of Foggy Cape, and opposite the mouth of Cook's River.

KISHTEWAR, a town and district of Hindostan, situated principally between 33° and 34° of N. lat, in the north-east extremity of the province of Lahore, or near the south range of the Cashinere Mountains. The district is in general hilly, cold, and covered with wood. Hence it retains its independence. It is intersected by the Chunab, over which there are no bridges; but at the village of Nausman, where it is seventy yards wide, a large basket is slung to a tight rope, reaching from side to side, and well secured by posts, and in this the passage is effected.

KISS, *v. a. & n.s.* Welsh *cusun*; Gr. *Kisser*, *n.s.* *κισσων*. To touch or salute

KISSING-CRUST, *n.s.* *κισσων*. With the lips; to treat with fondness; to touch gently; a salute: kissing-crust, crust formed where one loaf touches another in the oven.

And, mekeley, she to the sergeant praid
(So as he was a worthy gentleman)
That she might *kisse* hire childe, er that it died:
And in her barne, this litel child she laid,
With full sad face; and gan the child to blisse,
And lulled it, and after gan to *kisse*.

Chaucer. The Clerkes Tale.

'Have mercie, Lord! upon us wimmen alle.'
And on hir bare knees adoun they falle;
And would have *kist* his feet ther as he stood.

Chaucer. The Knights Tale.

Thy love I dare not aske, or mutual fixing,
One *kisse* is all my love and prides aspiring,
And after starve my heart, for my too much desiring.

Spenser. Britain's Idyl.

What sense had I of her stolen hours of lust!
I found not Cassio's *kisses* on her lips.

Shakspeare. Othello.

The hearts of princes *kiss* obedience,
So much they love it; but to stubborn spirits,
They swell and grow as terrible as storms.

Shakspeare.

Their lips were four red roses on a stalk,
And in their sumner beauty *kissed* each other.

Id.

But who those ruddy lips can miss,
Which blessed still themselves do *kiss*?

Sidney.

Upon my livid lips bestow a *kiss*;
O envy not the dead, they feel not bliss!

Dryden.

These baked him *kissingerusts*, and those
Brought him small beer. *King's Cookery.*

No lordly patron's hand he deigned to *kiss*,
Nor luxury knew, save liberty, and bliss.

Cooper. A Fowler.

Woman, oh woman, and an urchin's *kiss*,
Rends from thy heart thy love of many years—
Go, virtuous dame, to thy most happy lord,
And Bertram's image taint your *kiss* with poison.

Maturin. Bertram.

With a swimmer's stroke
Flinging the billows back from my drenched hair,
And laughing from my lip the audacious brine,
Which *kissed* it like a wine-cup, rising o'er
The waves as they arose, and prouder still
The loftier they uplifted me. *Byron. Two Foscari.*

KISSE, a cape, bay, and town, on the south coast of Arabia, in long. 51° 20' E., and lat. 15° 19' N. No water is nearer than a mile west. There are two inferior towns beside in this bay.

KISSE, in geography, a town of Africa, the ancient Colonia Assuras, as appears from many inscriptions still to be met with in the place. Here is a triumphal arch done in a very good taste; there is also a small temple of a square figure, with several instruments of sacrifice carved upon it. The town is situated in the kingdom of Tunis, on the declivity of a hill, above a large fertile plain; which is still called the plain of Surso, probably from its ancient name Assuras.

KISSING, by way of salutation, or as a token of respect, has been practised in all nations. The Roman emperors saluted their chief officers by a kiss. Kissing the mouth or the eyes was the usual compliment upon any promotion or happy event. Soldiers kissed the general's hand when he quitted his office. The Romans affected such a degree of delicacy, that they never embraced their wives in the presence of their daughters; yet what people ever plunged deeper in the most abominable vices! Near relations were allowed to kiss their female kindred on the mouth, to discover if they smelt of wine; as the Roman ladies sometimes made too free with the juice of the grape. Slaves kissed their master's hand, who used to hold it out to them, for that purpose. Kissing was a customary mode of salutation amongst the Jews, as we may collect from Judas approaching his master with a kiss. Relations used to kiss their kindred when dying, and when dead; when dying, out of a strange opinion that they should imbibe the departing soul; and when dead, by way of valedictory ceremony. They also kissed the corpse after it was conveyed to the pile, when it had been seven or eight days dead.

KISTNA, or KRISHNA, a river of the south of India, so called after the celebrated deity of this name. It takes its rise near Sattarah, in the province of Bejapore, fifty miles in a direct line from the western sea-coast. During its course east-

ward, it is joined by the Malpurba, Gutpurba, Beemah, and Toombuddra, and pours a prodigious volume of waters, by various mouths, into the Bay of Bengal. It is 650 miles in length; but, owing to sand at its mouths, it is not navigable by ships. This river formed the southern boundary of the Mahommedan kingdom of the Deccan.

KISTNAGHURRY, a town and fortress of Barramahal in the south of India. It is situated on a rock nearly 700 feet in perpendicular height, and has never yet been taken by force. In November 1791 the British troops were repulsed in attempting to storm it; but it came into our possession along with the province, in 1792, and has been since dismantled. It is surrounded by extensive rice fields. Long. 78° 23' E., lat. 12° 32' N.

KIT, *n.s.* Dut. *kitte*. A large bottle: a small diminutive fiddle. A small wooden vessel, in which Newcastle salmon is sent to London and elsewhere.

'Tis kept in a case fitted to it, almost like a dancing master's *kit*. *Grew's Museum.*

KITCH'EN, *n.s.* } Saxon *cycene*; Welsh *kegin*; Flem. *keg*; Fr. *cuisine*; Ital. *cucina*; Erse. *kyshen*.
KITCH'EN-GARDEN, *n.s.* }
KITCH'EN-MAID, *n.s.* }
KITCH'EN-STUFF, *n.s.* }
KITCH'EN-WENCH, *n.s.* }

The room in a house where the provisions are cooked: kitchen-garden, garden in which esculent plants are produced: kitchen-maid, a maid under the cook maid: kitchen-stuff, the fat of meat scummed off the pot, or gathered from the dripping pan: kitchen-wench, scullion; maid employed to clean the instruments of cookery: kitchen-work, cookery, or work done in the kitchen.

These being culpable of this crime, or favourers of their friends, which are such by whom their *kitchens* are sometime amended, will not suffer any such statute to pass. *Spenser.*

Can we judge it a thing seemly for any man to go about the building of an house to the God of heaven, with no other appearance than if his end were to rear up a *kitchen* or a parlour for his own use! *Hooker.*

Laura to his lady was but a *kitchenwench*. *Shakspeare.*

He was takeu into service in his court to a base office in his *kitchen*; so that he turned a broach that had worn a crown. *Bacon.*

Gardens, if planted with such things as are fit for food, are called *kitchengardens*. *Id.*

As thrifty wench scrapes *kitchenstuff*, And barrelling the droppings and the snuff Of wasting candles, which in thirty year, Reliquely kept, perchance buys wedding cheer. *Donne.*

To that arch city of this government, The first three pipes the ready feast convoy: The other three in baser office spent, Fling out the dregs which else the *kitchen* cloy. *Fletcher's Purple Island.*

Instead of *kitchenstuff* some cry
A gospel-preaching ministry. *Iudibras.*

A *kitchengarden* is a more pleasant sight than the finest orangery. *Spectator.*

We see no new-built palaces aspire,

No *kitchens* emulat the vestal fire. *Pope.*

Roasting and boiling leave to the *kitchenwench*. *Swift.*

The *kitchen* soon was all on fire,

And to the roof the flames aspire. *Couper.*

Mr. Griflin, Sir,—This is to let you know, that though I can't write nor read, our Peter writes this for me, and I hear all your papers read in our *kitchen*.

Canning. Microcosm.

KITCHEN, ARMY, is a space of about sixteen or eighteen feet diameter, with a ditch surrounding it three feet wide; the opposite bank of which serves as a seat for the men who dress the victuals. The kitchens of the flank companies are contiguous to the outline of the camp; and the intermediate space is generally distributed equally for the remaining kitchens. As each tent forms a mess, each kitchen must have as many fire-places as there are tents in the company.

KITCHEN, PUBLIC. See PUBLIC KITCHEN.

KITE', *n.s.* } Sax. *cyte*; Welsh *end*. *A*

KITESFOOT, *n.s.* } bird of prey that infests farms and steals chickens; a name of reproach denoting rapacity; a fictitious bird made of paper: *kitesfoot*, a plant.

The starling that the counsail can bewrie;

The tame ruddocke; and the cowarde-kite.

Chaucer. The Assamble of Foules.

Detested kite! thou liest.

Shakespeare. King Lear.

More pity that the eagle should be mewed,

While kites and buzzards prey at liberty.

Shakespeare.

The heron, when she soareth high, so as sometimes she is seen to pass over a cloud, sheweth winds; but kites, flying aloft, shew fair and dry weather.

Bacon.

A leopard and a cat seem to differ just as a kite doth from an eagle. *Grew.*

A man may have a great estate conveyed to him; but if he will madly burn, or childishly make paper kites of his deeds, he forfeits his title with his evidence. *Government of the Tongue.*

KITE, in ornithology. See FALCO.

KIT'S, (*St.*), or St. Christopher's, one of the West India Islands. See CHRISTOPHER'S.

KITTEN, *n.s. & v.n.* Tent. *kaygin*. The diminutive of cat. A young cat: to bring forth young cats.

So it would have done

At the same season, if your mother's cat Had kittened, though yourself had ne'er been born.

Shakespeare.

That a mare will sooner drown than an horse, is not experienced; nor is the same observed in the drowning of whelps and kittens.

Browne's Vulgar Errors.

The eagle timbered upon the top of a high oak, and the cat kittened in the hollow trunk of it.

L'Estrange.

Helen was just slipt into bed;

Her eyebrows on the toilet lay,

Away the kitten with them fled,

As fees belonging to her prey. *Prior.*

It was scratched in playing with a kitten.

Wiseman.

Close by the threshold of a door nailed fast

Three kitties sat; each kitten looked aghast.

Couper. Colubriad.

KIUTAHIA, a city of Asia Minor, the capital of Anatolia, is situated partly at the foot, and partly on the sides of the Poorsac Dag, a range of mountains bounding a fertile valley, on

the south. It occupies the position of the ancient Cotyœun. The town, covering a considerable extent of ground, is of course uneven in its site; but contains several handsome fountains, conveyed from the hills by aqueducts; and, though not so populous as formerly, is said still to contain between 50,000 and 60,000 inhabitants, Armenians and Greeks. There are said to be thirty hummums or public baths, fifty mosques, four Armenian and one Greek church, and twenty caravanseras. Here are also the ruins of a castle, which must have been once of great strength. Long. $29^{\circ} 52' E.$, lat. $39^{\circ} 25' N.$

KIU-TCHEOU-FOU, a town of China of the first rank, in the province of Tchekiang. It is built on a fine river, and borders on Kiangsee and Footchien, from which last it is separated by a range of mountains, the ascent of which is by stairs. Long. $118^{\circ} 39' E.$, lat. $29^{\circ} 2' N.$.

KIZILERMAK, the ancient Halys, a considerable river of Asia Minor, which rises from Mount Argish, near Kaisarieh; and, after flowing westwards, turns to the south, and falls into the Black Sea, about forty miles south of Samsoon, in long. $36^{\circ} 10' E.$, and lat. $41^{\circ} 30' N.$ It is considered the finest river in Asia Minor.

KIZLAR, a fortified town and district of Asiatic Turkey, in the government of Caucasus. It is situated near the confluence of the Terek with the Caspian, and was built in 1736. It is garrisoned by battalions of the tribes who wander over the steppe between Kizlar and Astrakan, chiefly Nogays, Troukhmen, and Kalnuks. It is an entrepôt for the commerce of Astrakan with Persia and the Caucasus. Wine, brandy, and silk are produced and exported in considerable quantity; also the oil of sesamus. Long. $46^{\circ} 29' 10' E.$, lat. $43^{\circ} 51' N.$

KLAPROTH (Martin Henry Von), professor of chemistry at Berlin, died there at a very advanced age, January 1st 1817, having been a writer on that science above forty years. He was the fortunate discoverer of uranium, the zirconia, and mellitic acid; and made various interesting experiments on copal, tellurium, and titanium. His works in German make 6 vols. 8vo.

KLATTAU, a circle and town of the south of Bohemia, bounded by Pilsen and Prachatitz, and in part by the north-east frontier of Bavaria. The area of the circle is 870 square miles, with 140,000 inhabitants. The town is well built, and has extensive woollen manufactures. In the neighbourhood are marble quarries, some silver mines, and a celebrated mineral water. The town is said to have been surrounded with walls in the year 1000. In 1810 part of it was destroyed by fire. Population 4000: sixty-nine miles south-west of Prague.

KLEBER (J. B.), a French general, was born in Strasburgh in 1759, and was educated for an architect. Accident led him to enter into the Austrian service, in which he continued eight years, and then, returning to his native country, he became inspector of the public buildings in Upper Alsace. The revolution of France rekindled his military ardor, and he obtained a commission in the service. He displayed great bravery and judgment at the siege of Mayence, after which he was employed in

La Vendée; but the sanguinary scenes of that province so disgusted him, that he obtained his recall, and was afterwards engaged in the north, where he defeated the Austrians, took Mons, and drove the enemy from Louvain. He also took Maestricht, and contributed to the capture of several other strong places. Discontented with the directory, he left the army and returned to Paris, where he led a private life, writing his military memoirs, till Buonaparte, being appointed general of the army of Egypt, chose Kleber as his companion. At the siege of Alexandria he was wounded on the head as he was climbing the ramparts, but did not retire till he received a second wound. He defeated the Turks in several actions, and Buonaparte, on quitting Egypt, left him in the chief command. In a short time he signed the treaty of El-Arish with Sir Sydney Smith, by which the French agreed to leave Egypt; but it was annulled by the British government, and hostilities were renewed. Kleber, though reduced, did not bend under his misfortunes, but defeated the Turks at the obelisk of Heliopolis. He next took Cairo by storm, and formed an alliance with Murat Bey; but was assassinated by a Turk named Solyman, who gave him four stabs with a dagger, in the year 1800.

KLEINHOVIA, in botany, a genus of the decandria order, gynandria class of plants; natural order thirty-seventh, columniferous: cal. pentaphylloous; the petals five; the nectarium campanulated and pedunculated, containing the stamina: caps. inflated and five seeded.

KLEIST (Edward Christian de), a celebrated German poet, and a soldier of distinguished bravery, was born at Zeblin, in Pomerania, in 1715. He studied at Cron in Poland, and afterwards at Dantzig and Koningsberg. Having in vain endeavoured to obtain preferment in the law, at twenty-one years of age he accepted a post in the Danish army. He then studied all the sciences connected with military affairs, with the same assiduity he had before studied civil law. In 1740, at the beginning of the reign of Frederick king of Prussia, he went to Berlin, and was presented to the king, who made him lieutenant of his brother prince Henry's regiment; and he was in all the campaigns which distinguished the first five years of Frederick's reign. In 1749 he was made a captain; and published his excellent poem on the Spring. Before the breaking out of the war with Russia, the king appointed him companion to prince Frederick William, and to eat at his table. In 1756 he was nominated major of Hausesen's regiment. After the battle of Rosbach the king gave him, by an order in his own hand writing, the inspection of the great hospital established at Leipsic. In 1758, prince Henry coming to Leipsic, captain Kleist desired to serve in his army, which was readily granted. He also served that prince at the beginning of the campaign of 1759, in Franconia, and in all the expeditions of that army, till he was detached with the troops under general de Fink to join the king's army. On the 12th of August was fought the bloody battle of Kunersdorf, in which he fell. He might have recovered, but the fractured bones having cut

an artery, he died next day by loss of blood, after experiencing much kindness from the Russian huzzars. Though the city of Frankfort was then in the hands of the enemy, they buried this Prussian hero with all military honors: the governor, magistrates, professors, and students, with many of the Russian officers, forming the procession, preceded by the funeral music. His poems, which are greatly admired, are elegantly printed in the German tongue, in 2 vols. 8vo.

KLICK, *v. n.* From clack. To make a small sharp noise. In Scotland it denotes to pilfer, or steal away suddenly with a snatch.

KLOPSTOCK (Frederick Theophilus), a celebrated poet of Germany, born at Quedlinburg on the 2nd of July, 1724. After learning at home the elements of the languages, he proceeded in his sixteenth year to college, where his character displayed itself advantageously. He applied very diligently to compositions in prose and verse, and wrote, among other poetical essays, some pastorals, the favorite subjects of the youthful muse in the German universities. At so early a period as the present he took the resolution of writing an epic poem, which had hitherto not existed in the German language. The high opinion he had of Virgil, his favorite poet amongst the ancients; the honor he promised himself in being the first who should offer the German public a work like the *Aeneid*; the warmth of patriotism that early animated him to raise the fame of German literature, in this particular, to a level with that of other European countries; all combined with the consciousness of his own superior powers, to spur him on to the execution of his purpose. He was, however, long undecided in the choice of his subject; he sought out some hero in the German history; but, after choosing and rejecting for some time, at length gave the preference to the Messiah. This was even before his acquaintance with Milton, whose *Paradise Lost* was but lately become an important subject of his study. In the autumn of the year 1745 he left the college, and repaired to the university at Jena. He now applied to the study of divinity. In the Easter of 1746 he left Jena and went to Leipsic in company with his cousin Schmidt, from Langensalza, afterwards privy counsellor at the court of Vienna. Here he soon became acquainted with the young favorites of the muses, who had formed themselves into a sort of literary society, in order to purify their taste by mutual criticisms on their essays, the best of which were published in the paper entitled *Bremen Contributions*. Their names were Gærtner, Cramer, Schlegel, Geiske, Rabener, Zacharia, and others. Our poet was admitted into their society, and attended their meetings. About this time Klopstock began to display his genius in the lyric style, and produced many excellent odes of this description. These, together with the three cantos of the *Messiah*, appeared at first in the *Bremen Contributions*. The *Messiah* acquired, in the space of a few years, its merited attention from all ranks in Germany. It found friends and enemies, admirers and critics, every where; but its probation was owing as much to the sacredness

of the matter as to the beauty of the poetry; Christian readers loved it as a book that afforded them, at length, amidst the themes of cold orthodoxy, some scope for devout feeling: young preachers quoted it in the pulpit, and coupled the name of Klopstock with that of the prophets.

Klopstock now, however, began to find Leipsic unpleasant to him; his friends had one by one left the university, and he felt himself alone. He therefore in 1748 repaired to Langensalza, in which place he remained till 1750, when he was invited by his friend Bodmer to visit him in Switzerland. Klopstock accordingly accompanied the philosopher Sulzer to Zurich, where he remained for a considerable time. He became indeed so pleased with the scenery of the country, and the simple manners of the inhabitants, that he intended to settle and spend the remainder of his life there, when he received an invitation from Bernstorff to settle at Copenhagen with an assurance that such a pension should be given him as should permit him to devote himself solely to literature. Klopstock set off in the spring of the year 1751 for Denmark. He took the road to Copenhagen by Saxony and Quedlinburg, where he saw his relations; and at Brunswick he visited some of his academical friends; at Hamburg he enjoyed the company of Hagedorn, became acquainted with Miss Muller, celebrated in his odes under the name of Cidli, and who was a great admirer of his *Messiah*. At Copenhagen, Klopstock met with the most cordial reception from Bernstorff. He there lived a very secluded tranquil life, never obtruding his presence at court, but dedicating his time entirely to his poem. During his residence here he appears to have enlivened his mind by the works of Dr. Young and Samuel Richardson. With the former he even kept up a correspondence, and addressed an ode to him expressive of his very high esteem and regard. The lively interchange of letters that passed uninterruptedly between his beloved Cidli and himself, knit the bonds of affection still closer, and in 1754 he travelled to Hamburg, where she at length became his wife. But he enjoyed for a short time only the true bliss of conubial affection. This amiable and affectionate lady was snatched from him in child-bed about nine months after their marriage. To the year 1771 Klopstock made Copenhagen his usual place of residence; but after that time he lived mostly in Hamburg, in the character of royal Danish legate, and counsellor from the court of the Margrave of Baden. This latter title, together with a pension, was the grant of the elector Frederick of Baden, whose invitation to our poet was so pressing, that he spent the year 1775 at the court of Carlsruhe. While sinking into the grave, he was engaged to present posterity with a collection of his works, such as would be worthy the great poet. From the year 1798 they passed through the office of the famous Göschens three different times, and evince the high veneration in which the poet was held by his contemporaries. Klopstock died as he had lived March 14th, 1803. His *Messiah* will ever remain a monument of his genius, and on the

value of his odes all cultivated Germans have but one opinion. From the superior talents of this poet, in the epic style, it is usual to forget his dramatic pieces, which are, however, certainly of no mean value. Although his tragedies are more fitted for reading than representation, yet they discover the same traits of simplicity, dignity, and force of amplification, as well as elegant language, which characterise all his productions.

KLOSTER-NEUBURG, a town of Lower Austria, on the right side of the Danube, six miles north of Vienna. It was once a Roman colony. It contains several monuments of interest, and takes its name from a monastery of the order of St. Augustine, founded in 1114. The church has several curiosities; and in the treasury has been preserved, since 1616, the crown of the archduke of Austria, which is regularly carried to Vienna on the accession of a new sovereign. The library of this monastery contains 25,000 printed volumes, besides Hebrew, Arabic, and Latin MSS. The cellars are of great extent, and contain a celebrated tun, the largest in Germany, next to that of Heidelberg. In 1638 the lower town was burnt by the Turks, but the upper town resisted all their efforts. Here is a dock-yard for light-armed vessels, and a government manufactory of arms. Long. 16° 17' E., lat. 48° 19' N.

KLOTZ (Christian Adolphus), an eminent German critic, born in the year 1738 at Bischofswerden, near Dresden, where his father was settled as a clergyman. He displayed, at an early period, such an attachment to letters, that his parents spared no expense to gratify his taste, and to enable him to cultivate his talents to the best advantage. He employed those leisure hours, which other youths devote to amusements, in composing and reciting German verses. At Gorlitz he studied, under Baumgarten, the Greek and Roman classics, and gave a specimen of his powers in versification by a poem composed on the Destruction of the Zittau, which was laid waste in the year 1757. In 1758 he proceeded to Leipsic to study jurisprudence, and while here published several papers in the Acta Eruditorum, and some separate pieces. In 1761 he published his Opuscula Poetica, containing twenty-three odes, three satires, and as many elegies. From Leipsic he repaired to Jena, where he opened a school, which was well attended.

Having accepted of an invitation to a professorship at the University of Gottingen, in 1762, he set off for that place, and almost immediately after his arrival he was attacked by a severe illness, from which, however, he recovered, and immediately published a treatise, De Verecundia Virgilii, to which were added three dissertations relative to the eclogues of the poet. He also published Miscellanea Critica, and applied himself to the study of ancient paintings, with which he became well acquainted. His celebrity had now so much increased, that he received two offers, one from the prince of Hesse Darmstadt, to be professor of the oriental languages at Giessen, and the other from his Prussian majesty, to be professor of eloquence at Halle.

While he was deliberating respecting the choice he should make, he was nominated by his Britannic majesty to be professor of philosophy at Gottingen, with an increased salary. He soon, however, quitted Gottingen, and accepted an offer made him by his Prussian majesty of being professor of philosophy and eloquence at Halle, with the rank and title of aulic counsellor. While preparing for his departure, he published Historia Nummorum Contumeliosorum et Satyricorum, containing a history of these coins; and on his removal to Halle he gave the public another work of the same kind, and at the same time effected the institution of a new society, called the Literary Society of Halle. In 1766 he was invited by his Polish majesty to Warsaw, to superintend the education of the children of the Polish nobility, which he would gladly have accepted, as it afforded him an opportunity of visiting new countries; but the king ordered him to remain at Halle, conferred upon him the rank of privy counsellor, and accompanied this mark of honor with a considerable addition to his salary. He died in 1771, leaving behind him many other works besides those to which we have referred. Before his death he revised every thing which he had written on coins, and published Opuscula Nummaria quibus Juris Antiqui Historiae nonnulla Capita explicantur.

KNAB, *v. a.* { Belg. *knappen*; Erse.

KNÄBEL, *v. n.* { *knapp*. To bite. Perhaps properly to bite some brittle, that makes a noise when it is broken.

Horses will *knabble* at walls, and rats gnaw iron.

Brown.

I had much rather lie *knabbing* crusts, without fear, in my own hole, than be mistress of the world with cares.

L'Estrange.

An ass was wishing, in a hard winter, for a little warm weather, and a mouthful of fresh grass to *knab* upon.

Id.

KNACK, *n. s. & v. n.* { Sax. *enapnige*, skill.

KNACKER, *n. s.* { A little machine; a petty contrivance; a toy. (This word is apparently formed from the knocking or snapping of the fingers, used by jugglers.) A readiness; facility; a dexterity; a nice trick: knack, to make a sharp quick noise; perhaps to knock: knacker, a maker of small work; a ropemaker.

The more queinte *knakkes* that they make,

The more wol I stele whan that I take.

Chaucer. *The Reves Tale.*

For thee, fond boy,

If I may ever know thou dost but sigh
That thou no more shall see this *knack*, as never
I mean thou shalt, we'll bar thee from success.

Shakspeare.

This cap was moulded on a porringer,
A velvet dish; fie, fie, 'tis lewd and filthy:

Why 'tis a cockle, or a walnut shell,
A *knack*, a toy, a trick, a baby's cap.

Id.

I'll teach you the *knacks*

Of eating flax,

And out of their noses

Draw ribbands and posies.

Ben Jonson's *Gypsies*.

But is't not presumption to write verse to you,
Who make the better poems of the two!
For all these pretty knacks that you compose,
Alas! what are they but poems in prose? Denham.

He expounded both his pockets,
And found a watch, with rings and lockets ;
A copper-plate, with almanacks
Engraved upon't, with other *knucks*. *Hudibras.*
Knaves, who in full assemblies have the *knack*
Of turning truth to lies, and white to black. *Dryden.*

There is a certain *knack* in conversation that gives
a good grace by the manner and address. *L'Estrange.*

One part for plough-wright, *knacker*, and smith.
Mortimer.

My author has a great *knack* at remarks : in the
end he makes another about our refining in contro-
versy, and coming nearer and nearer to the church
of Rome. *Attberry.*

For how should equal colours do the *knack*?
Cameleons who can paint in white and black? *Pope.*

The dean was famous in his time,
And had a kind of *knack* at rhyme. *Swift.*

KNAG, n. s. { Dan. *knug*. A hard knot
KNAG'GY, adj. { in wood; knotty.

KNAP, n. s. Saxon *cnæp*, a protuberance ;
Welsh *cnap*, a protuberance, or a broken piece.
A protuberance ; a swelling ; prominence.

You shall see many fine seats set upon a *knap* of
ground, environed with higher hills round about it,
whereby the heat of the sun is pent in, and the wind
gathered as in troughs. *Bacon.*

Hark on *knup* of yonder hill,
Some sweet shepherd tunes his quill. *Browne.*

It is a *knappe* of a mountaine very steepe and
sharp of all sides, with a narrow point like a pine
apple, by reason whereof we do call it orthopagum.
North's Plut. Sylla.

KNAP, v. a. & v. n. { Dut. *knuppen* ; Erse.

KNAP'PLE, v. n. { *knaap*. To bite or
break short ; to make a short sharp noise like
that of breaking : knapple, to break off with a
sharp noise.

He *knappeth* the spear in sunder.

Common Prayer.

Knap a pair of tongs some depth in a vessel of
water, and you shall hear the sound of the tongs.
Bacon's Natural History.

He will *knup* the spears a-pieces with his teeth. *More.*

I reduced the shoulders so soon, that the standers-
by heard them *knup* in before they knew they were
out. *Wiseman.*

KNAP'BOTTLE, n. s. *Papaver somniferum.* A
plant.

KNAPSACK, n. s. From Belg. *knappen*,
bite, or to eat. The bag which a soldier carries
on his back ; a bag of provisions.

The constitutions of this church shall not be re-
pealed, 'till I see more religious motives than
diers carry in their *knapsacks*. *King Charles.*

If you are for a merry jaunt, I'll try for once who
can foot it farthest : there are hedges in Summer,
and barns in Winter : I with my *knapsack*, and you
with your bottle at your back : we'll leave honour
to madmen, and riches to knaves, and travel till we
come to the ridge of the world. *Dryden.*

KNAP'WEED, n. s. Lat. *jacea*. A plant.

KNAPWEED. See *CENTAUREA*.

KNARE, n. s. Germ. *knor*. A hard knot.

A forest

In which ther wonneth neyther man ne best ;
With knotty, *knarry*, barrein trees elde,
Of stubbes sharpe and hideous to behold.

Chaucer. The Knightes Tale.

A cake of scurf lies baking on the ground,
And prickly stubs instead of trees are found ;
Or woods with knots and *knares* deformed and **old**,
Headless the most, and hideous to behold. *Dryden.*

KNARESBOROUGH, a market town and
parish of Yorkshire, in the West Riding, 211 miles
from London. The town is an ancient borought,
and called by foreigners the Yorkshire Spa. It
is almost encompassed by the Nid, which issues
from the bottom of Craven Hills ; and had a
priory with a castle, which have long since been
demolished, on a craggy rock, whence it took
the name. It is about three furlongs in length ;
and the parish is famous for medicinal springs
near each other, and yet of different qualites.

1. The sweet spa, or vitriolic well, in Knaresbor-
ough Forest, three miles from the town, which
was discovered in 1620. 2. The sulphureous
spa, which is used only in bathing. 3. St. Mun-
go's, a cold bath, four miles from the town. 4.
The dropping-well, which is in the town, and the
most noted petrifying spring in England, so
called by reason of its dropping from the spongy
rock hanging over it. The ground which re-
ceives it, before it joins the well, is, for twelve
yards long, become a solid rock. From the well
it runs into the Nid, where the spring water has
made a rock that stretches some yards into the
river. It has a good market, and six fairs. Here
is a stone bridge over the river, near one end of
which is a cell, dug out of the rock, called St.
Robert's chapel. The town is 18 miles west by
north of York. It sends 2 members to parliament.

KNAVE, n. s. { Sax. *cnapa*, a page ;
KNA'VERY, n. s. { a boy ; a male child ; a
KNA'VISH, adj. { servant : all these are
KNA'VISHLY, adv. obsolete. A petty rascal ;
a scoundrel ; a rogue ; a card with a soldier
painted on it : knavery, dishonesty ; petty cheat-
ing ; mischievous tricks or practices : knavish,
wicked ; fraudulent ; waggish ; mischievous.

And to a *knave* a ring she gave, anon ;
And prayed him by signs, for to gon
Unto the Queene, and beren hite that clothe.

Chaucer. Legende of Good Women.

Here's no *knavery* ! See, to beguile the old folks,
how the young folks lay their heads together !

Shakspeare.

Here she comes curst and sad :
Cupid is a *knarish* lad,
Thus to make poor females mad. *Id.*
We'll revel it as bravely as the best,
With amber bracelets, beads, and all this *knavery*. *Id.*

For 'twill return, and turn to account,
If we are brought in play upon't,
Or but by casting *knaves* get in,
What power can hinder us to win ! *Hudibras.*
For as the moor the eye doth please
With gentle beams not hurting sight,
Yet hath sir sun the greater praise,
Because from him doth come her light :
So if my man must praises have,
What then must I that keep the *knave*? *Sidney.*

The cunning courtier should be slighted too,
Who with dull *knavery* makes so much ado ;
'Till the shrewd fool, by thriving too fast,
Like *Aesop's* fox, becomes a prey at last. *Dryden.*
He eats and drinks with his domestic slaves ;
A verier hind than any of his *knaves*. *Id.*

An honest man may take a knave's advice ;
But idiots only may be cozened twice. *Id.*
When both plaintiff and defendant happen to be
crafty knaves, there's equity against both.

L'Estrange.

Most men rather brook their being reputed knaves,
than for their honesty be accounted fools ; knave, in
the mean time, passing for a name of credit. *Sotah.*

"Tis foolish to conceal it at all, and knavish to do
it from friends. *Pope's Letters.*

See all our fools aspiring to be knaves. *Pope.*

From man to man, or ev'n woman paid,

Praise is the medium of a knavish trade,

A coin by craft for folly's use design'd,

Spurious, and only current with the blind.

Couper. Epistle to a Protestant Lady in France.

It is your knell—swell on thou lusty peal,

Now knaves, what ransom for your souls.

Byron. Marino Faliero.

Not to keep my readers longer in suspense, the
subject of the poem is, 'The Reformation of the
Knavery of Hearts.' It is not improbable that some
may object to me, that a knave is an unworthy hero
for an epic poem ; that a hero ought to be all that is
great and good. *Canning. Microcosm.*

KNAUTIA, in botany, a genus of the mono-
gynia order, and tetrandria class of plants ; na-
tural order forty-eighth, aggregata : common
cal. oblong, simple, quinqueflorous : the proper
one simple, superior : the florets regular : the re-
ceptacle naked.

KNEAD, v. a.

Saxon, *cnean;*

KNEADING-TROUGH, n.s. { Belg. *kneden.* To
beat or mingle any stuff or substance : kneading-
trough, a trough in which dough is mixed toge-
ther, and worked for making bread.

Frogs shall come into thy kneading-troughs. *Exodus.*

He' goth and geteth him a kneading-trough,
And after, a tubbe,—and a kelynyn. *Chaucer. The Milleres Tale.*

Here's yet in the word hereafter, the kneading, the
making of the cakes, and the heating of the oven. *Shakspeare.*

It is a lump, where all beasts kneaded be,
Wisdom makes him an arc, where all agree. *Donne.*

Thus kneading up with milk the new-made man
His kingdom o'er his kindred world began :
'Till knowledge misapplyed, misunderstood,
And pride of empire, soured his balmy blood. *Dryden.*

One paste of flesh on all degrees bestowed,
And kneaded up alike with moist'ning blood. *Id.*
Prometheus, in the kneading up of the heart, sea-
soned it up with some furious particles of the lion. *Addison's Spectator.*

No man ever reapt his corn,
Or from the oven drew his bread,
Ere hinds and bakers yet were born,
That taught them both to sow and knead. *Prior.*

The cake she kneaded was the sav'ry meat. *Id.*
KNEE, n.s. & v.a.

Sax. *cneop*; Belg. *knie*; Syr. *cnea*; Gr.
KNEED, adv.

KNEE'-DEEP, adj. & adv. *yow;* Lat. *genu.* The
KNEE'-PAN, n.s. joint of the leg where

KNEEL, v.n. the leg is joined to
KNEE'-TRIBUTE, n.s. the thigh : a knee is

KNEE'-GRASS, n.s. a piece of timber

KNEE'-HOLM, n.s. growing crooked,
and so cut that the trunk and branch make an
angle : knee, to supplicate by kneeling : kneed,

having knees or joints, as inkneed, outkneed, and
knee-grass : knee-deep, rising to the knees ; sunk
in up to the knees : knee-pan, knee and pan, a
little round bone which covers the knee joint,
convex on both sides, and covered with a smooth
cartilage on its foreside : kneel, to bend the
knee : knee-tribute, worship, or obedience, shown
by kneeling : kneedgrass, a herb : kneeholm, a
herb.

A certain man kneeling down to him, said, Lord,
have mercy upon my son for he is lunatick.

Matt. xvii. 14.

And they with humble herte ful buxumly,
Kneling upon hir knees ful reverently.

Him thonken all. *Chaucer. The Clerkes Tale.*

Ere I was risen from the place that shewed
My duty kneeling, came there a reeking post,
Stewed in his haste, half breathless, panting forth
From Goneril his mistress, salutations.

Shakspeare.

When thou dost ask me blessing, I'll kneel down,
And ask of thee forgiveness. *Id. King Lear.*

Go you that banished him, a mile before his tent
fall down, and knee the way into his mercy.

Id. Coriolanus.

Thy royal father
Was a most sainted king : the queen that bore
thee,

Oftener upon her knees than on her feet,
Died every day she lived. *Id. Macbeth.*

Such dispositions are the fittest timber to make
great politicks of : like to knee timber, that is good
for ships that are to be tossed ; but not for building
houses, that shall stand firm. *Bacon.*

The kneepan must be shown, with the knitting
thereof, by a fine shadow underneath the joint.

Peacham on Drawing.

As soon as you are dressed kneel and say the Lord's
prayer. *Taylor's Guide to Devotion.*

I beg and clasp thy knees. *Milton.*

Receive frondus

Kneetribute yet unpaid, prostration vile. *Id.*

Weareid with length of ways, worn out with toil,
Iō lay down, and leaning on her knees,
Invoked the cause of all her miseries ;
And cast her languishing regards above,
For help from Heaven, and her ungrateful Jove. *Dryden.*

The country peasant meditates no harm,
When clad with skins of beast to keep him warm ;
In winter weather unconcerned he goes,
Almost kneedeep, through mire in clumsy shoes. *Id.*

Him, entering, thou shalt haply see
Beside his spouse, his infant on his knee,
Couper. Elegy IV.

And tortuous arms,
The shipwright's darling treasure, didst present
To the four quartered winds, robust and bold ;
Warped into tough knee timber many a load !
But the axe spared thee. *Id. Yardley Oak.*

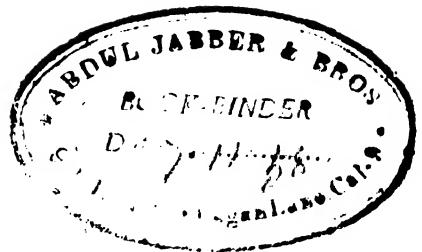
Hark ! art thou there ?
Come, kneel with me, and witness to the vow
I offer to renounce thee, and to die. *Maturin. Bertram.*

Now—now—he knœs—and now they form a cir-
cle,
Round him, and all is hidden—but I see

The lifted sword in air.—Oh ! Hark ! it falls !
Byron. Marino Faliero.

KNEE, in anatomy, the articulation of the thigh
and leg bones. See ANATOMY.

KNEE, in ship building, is a crooked piece of



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